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AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

VOL. 7. NO. 19. WEEKLY.

BALTIMORE, JUNE 20, 1885.

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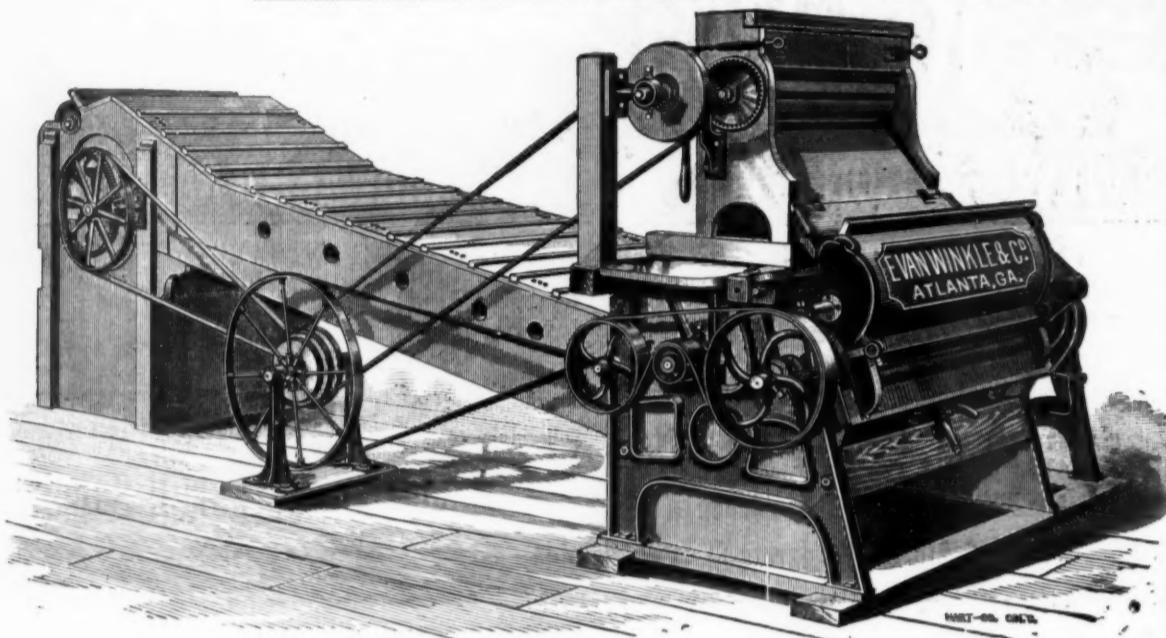
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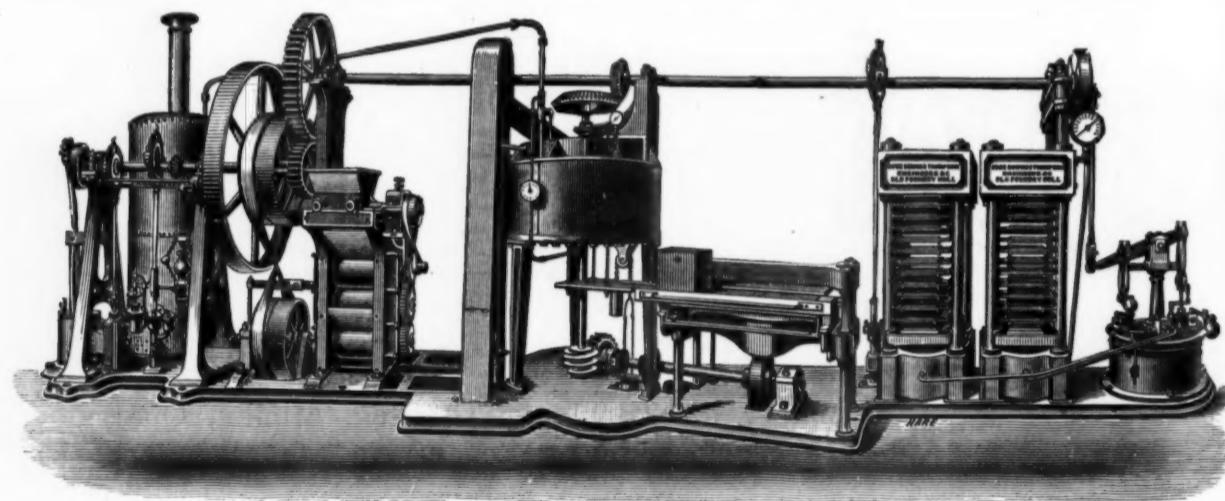
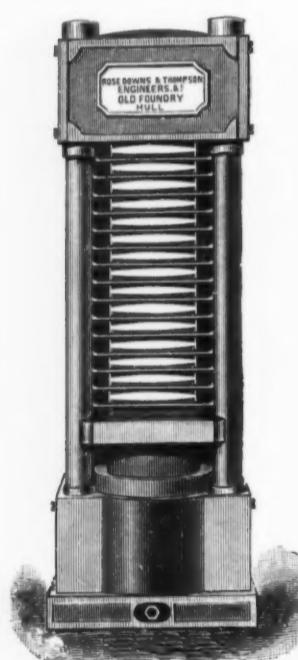


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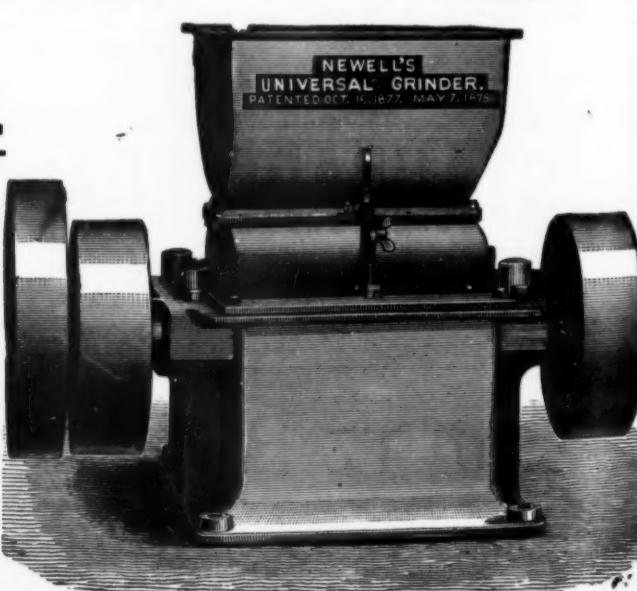
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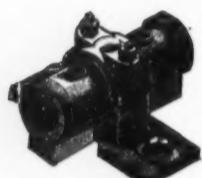
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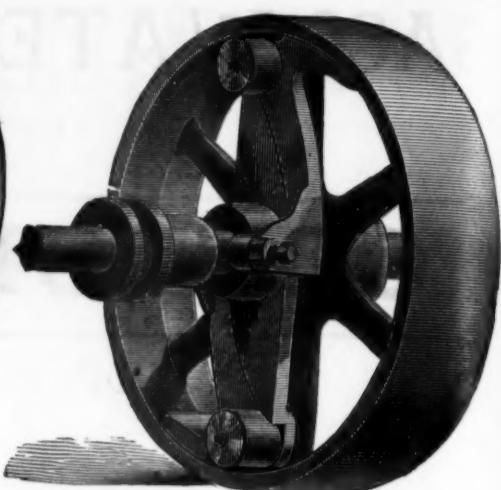
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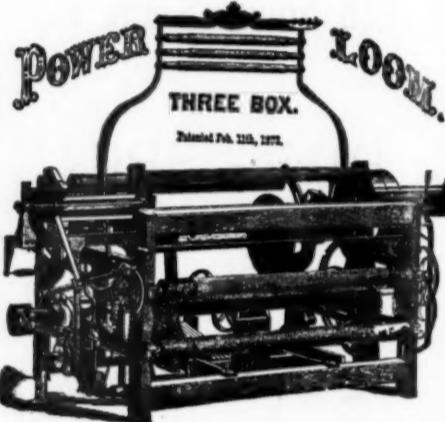
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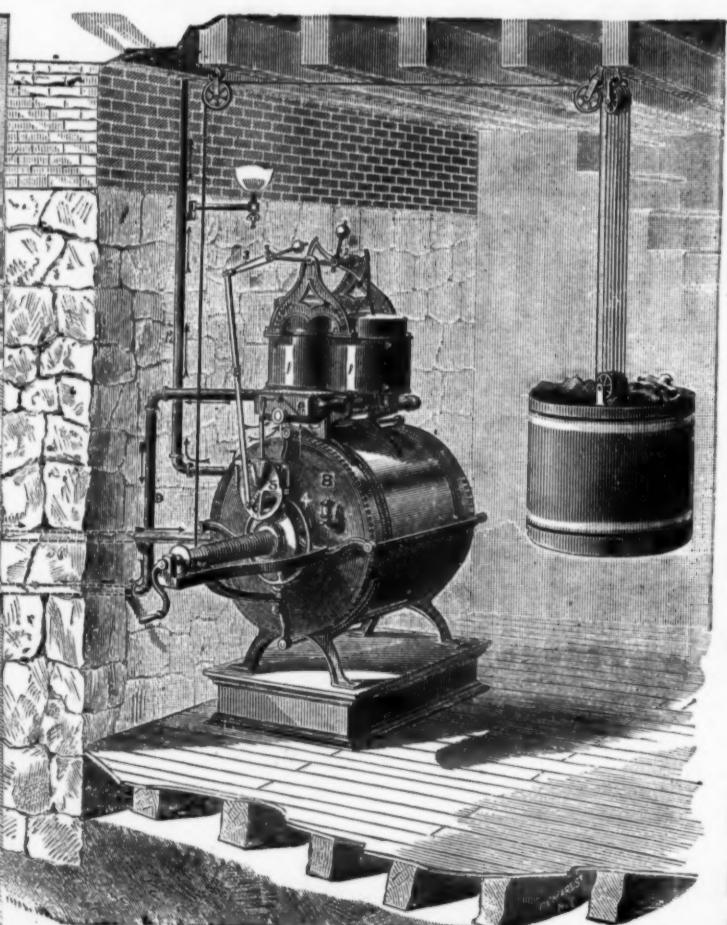
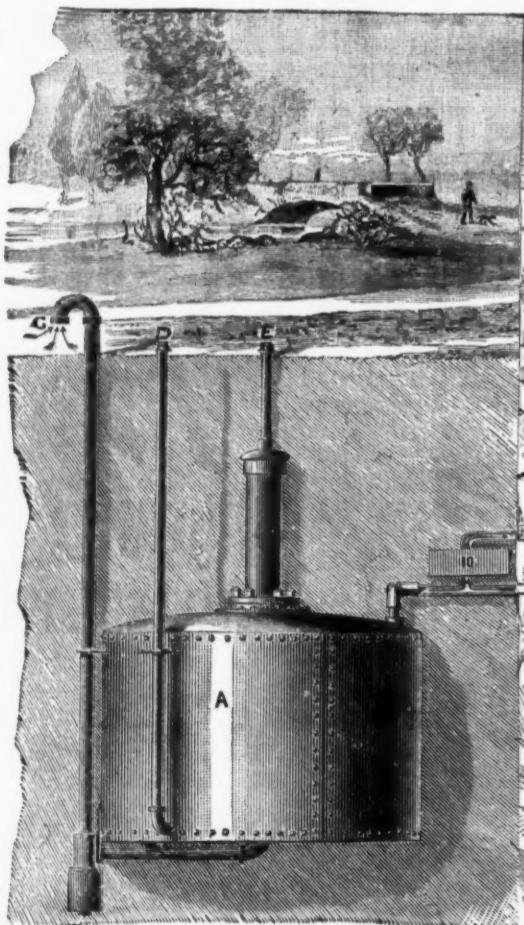
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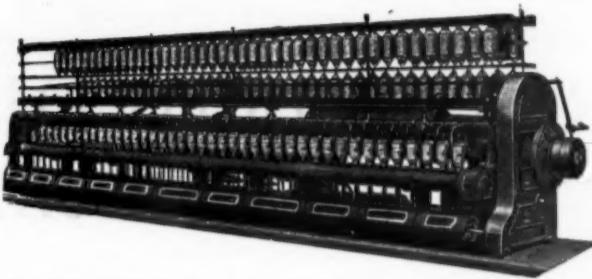
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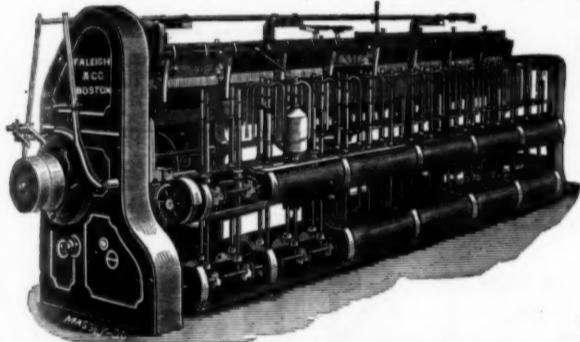
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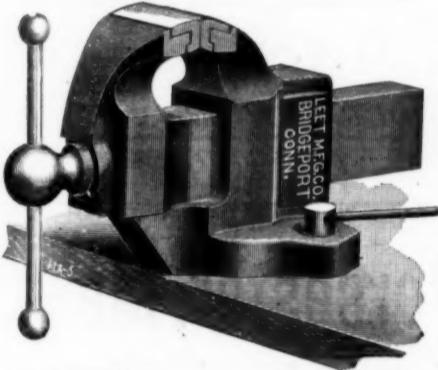
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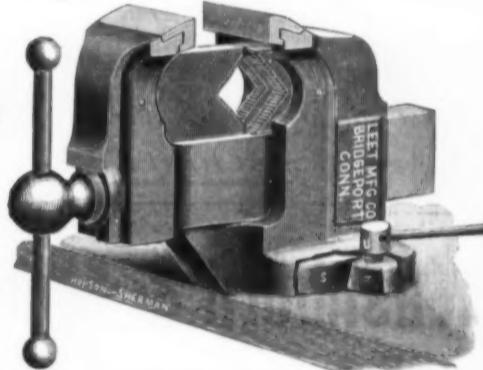
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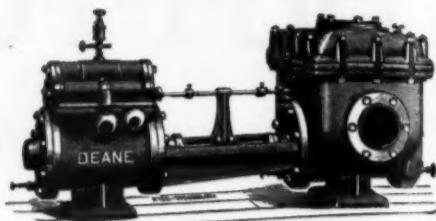
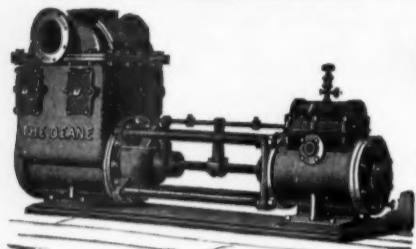
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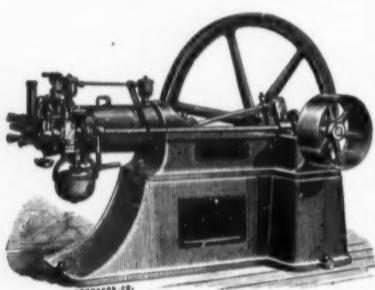


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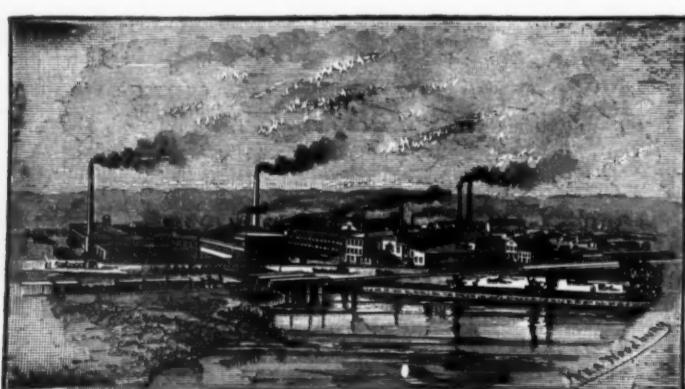
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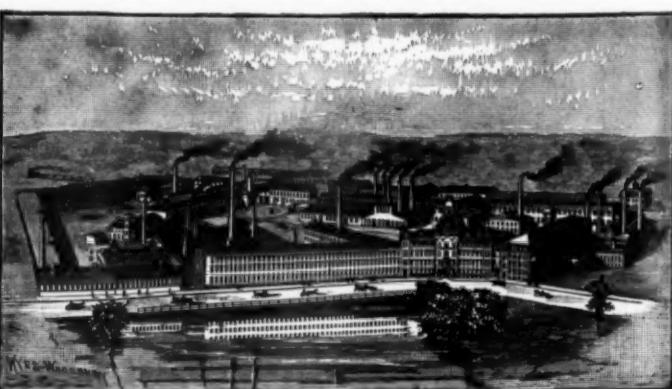
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Notes * From * Dixie.

BY CHAS. H. WELLS

Among the many railway lines leading out of Atlanta there is none more deservedly popular than the "Western & Atlantic"—better known, perhaps, as the "Kennesaw Route." Not long ago it was my good fortune to go by this enterprising line to Chattanooga,—where it makes close connections for all points in Texas and Arkansas—and the ride was one of the most enjoyable I have taken during the six years of almost incessant traveling in the South. The cars are elegant, the track is smooth and well laid, and, altogether, the tourist is as comfortable as painstaking care can make him. The trains frequently attain a speed of fifty miles an hour, and they make it without a bit of trouble and without shaking the passengers into pieces. Since Mr. B. W. Wren left the Western & Atlantic to become general passenger agent of the E. T., V. & G. system of roads, the passenger department has been under the charge of Mr. Joseph M. Brown, who, in connection with the active superintendent, Mr. Anderson, has improved the service so much and has introduced so many innovations that now the Western & Atlantic takes the lead of all its competitors, a position it will maintain at any cost.

* * *

A young gentleman from North Carolina recently went to New York in search of a fortune. He found but two men from his State who had done well in New York. One had made \$10,000 in three months in business, and the other, physician, had an income of \$15,000 a year. The young man wrote to his home paper, saying: "If there had been in the Southern States any such opportunities for these men as they found here, they would never have come away." In reply to this the Raleigh Register quietly remarks: "Perhaps it would not be difficult to name a greater number of Northern men who have found friends and fortunes in North Carolina." That is the way to put it. If young Southerners, without any special backing or any exceptional gifts, rush off to the large Northern cities, they will go through life picking up a maximum amount of experience on a minimum of capital. But at a time when the tide of migration is beginning to head southward in a steady stream from the northeast and northwest, it is hardly worth while to read our young men a lesson on the subject. Just at present "Southward, Ho!" is the watchword, and any watchword will pan out well that has "hoe" in it, no matter how it is spelled.

* * *

A Washington correspondent of a well-known free-trade organ in New York, writes: "The desire of the Pennsylvania iron makers to reduce wages and other costs of production indicate the failure of the present tariff to maintain high wages, whatever proof it may be of the effect of the tariff on the prices of iron or steel. The Southern iron makers are not anxious to have the tariff maintained. With their mines close to coal, wood and limestone, with labor cheaper than it is in Pennsylvania or Ohio, with railroads favoring them in transporting their iron, they are only anxious for a wider market. With the tariff lower they are confident they could still hold their own against foreign producers." Now this is all poppycock; the Southern iron men do want the tariff maintained. What does the Washington writer know about the needs of the Southern manufacturers? I have before me a letter from Samuel Noble, of Anniston, Ala.—the founder of that city and head of the Woodstock Iron Company,—and he says that protection is a necessity.

* * *

This same Washington writer then goes on to say: "The Constitution will not allow Pennsylvania to protect herself against the

cheap iron of Alabama and Georgia by imposing an inter-State export duty. Should Pennsylvania be forced out of the iron business, Alabama and Georgia, by inheriting the trade, might be converted to protection by the hope of profits greater than those ever dreamed of by Pennsylvania manufacturers. The danger of over-stimulation is as clear to Georgians as it ought to have been to Pennsylvanians, and they do not hope for an abandonment of the iron trade by the Keystone State. Just what action Congress shall or should take to satisfy both Pennsylvania and the South in adjusting the tariff schedules no one ventures to suggest." With Samuel J. Randall and his colleagues in Congress the correspondent need not get into a perspiration over the matter.

* * *

And, by the way, the iron industry in Georgia is on the boom in several places. The last issue of the Courier, published at Rome, Ga., says that a correspondent at Cedartown notes that the extensive improvements, which have been in progress at the plant of the Cherokee Iron Company since the blowing out of the furnace in June last, are nearing completion. It is expected the furnace will blow in soon after June 10th. Coke will take the place of charcoal hereafter. Among the more important changes are the relining of the stack, which is enlarged, with new heath, etc., new and larger hot blast ovens, a new engine-house, which now contains a new mammoth Weimer blowing engine, which, together with minor improvements, other machinery, etc., will reach a total cost of \$30,000. This goes to show that the Northern capitalists are gradually opening their eyes to the advantages offered down here for profitable investment.

* * *

The Knoxville, Sevierville & Pigeon River Railroad is the latest thing in East Tennessee. The company is a new one, having a charter for building and operating a railroad from Knoxville via Sevierville and the North Carolina line at Pigeon river, where that stream crosses the Great Smoky Range of mountains. Capt. W. J. Kirk, of Greenville, S. C., has been elected chief engineer of the road, and he says the people of Haywood and Sevier counties are thoroughly aroused over the prospects of a new road leading east, and there is no sort of doubt that its building will soon begin. The company is looking to South Carolina, their objective point being Charleston, and they hope to meet a road leading from this State at Pigeon river on the line between North Carolina and Tennessee. The road that will meet them first and offer a quick outlet to the sea is the road with which they desire to combine. They are delighted with the prospects of the Cumberland Gap route and give every assurance of building their road to the extent of its charter. The country through which the proposed Tennessee road will pass is a rich one, abounding in fine stock, iron and copper, and the richest forests of fine timber and hard woods.

* * *

At Newport, Ky., not far from the line of the proposed road, is located the "Scottish-Carolina Land & Timber Company, (Alex. A. Arthur, manager,) which now owns one hundred and forty thousand acres of land and commands immense wealth. This company has already begun the cutting of timber for shipment to Scotland, and it is their purpose to settle colonies of Scottish people upon these lands to engage in mining and in the cultivation of tobacco. The company propose to aid materially in building the road, as they desire a short line to the water. The Cumberland Gap, by meeting the Tennessee road at Pigeon river, where it cuts a gorge through the Great Smoky Mountains, tunneling the mountains as it were, would reach Knoxville by a route thirty miles shorter than to go on to Newport, where it

would meet the East Tennessee, Virginia & Georgia Road, an antagonistic line. At Knoxville the Louisville & Nashville system is at once reached. Sevierville is in an immensely wealthy county, and has no debt. The town is within four miles of the French Broad river, lying in the bosom of a fine farming country, with rich natural resources.

* * *

What a lively scrimmage there will be amongst the railroads to get possession of this new line. The Richmond & Danville people, through the Western North Carolina Railroad, has already offered to equip the road if the local capitalists will grade it. This would give the Richmond & Danville an opening in Tennessee and an entrance to Knoxville. The Louisville & Nashville would like it for various reasons, and, worst of all, the East Tennessee, Virginia & Georgia Road wants it so to keep interlopers out of their territory. It is now suggested that the Greenville & Laurens Road, had it pursued the policy of advancing mountainward instead of stopping at Greenville and consolidating with the Georgia Central, could have taken advantage of the Tennessee approach by meeting the proposed road at a convenient point of the French Broad.

* * *

The sanitary arrangements now existing in Memphis, Tenn., are worthy the attention of municipal authorities in all towns where malaria fevers are epidemic. Within the past few years Memphis has put down forty three miles of sewers, as many miles of drain tiles, paved fifteen miles of streets and five miles of alleys. She is now among the cleanest cities in the country. It has been urged that the population of the city shortly after the war was increased by the presence of numerous camp followers, and that the census figures of 1870 represented the normal population. At the period referred to property values were subject to unhealthy conditions, the value of money even being unstaple and uncertain. Now, things are different. Values are fixed as to property, and rents bear generally a just proportion to the trade or growth of the city. Building is very active. For years the city has been free from epidemics, confidence has been restored, and the trade reports and board of health reports show that the city is on solid ground, with a great future before her.

* * *

The custom of carrying fire-arms is so prevalent in the South that it has been frequently criticized in the newspapers. But about the hardest whack the pistol-carrying man has had lately came from the lips of a lady in Barnwell the other day, at the trial of Wm. Freeman for the murder of John Clayton. When Mrs. Clayton was asked the question by the solicitor: "Was your husband in the habit of carrying a pistol?" she promptly and scornfully replied: No sir, my husband was no coward! and burst into tears. A scarcely repressed murmur of applause moved the audience, who were at once touched and instructed by the keen and unaffected sarcasm of the rejoinder.

* * *

A dispatch to the Charleston News and Courier, from Greenville, S. C., says that a permanent Horticultural Society was organized in that city last week. Its object is the promotion of fruit culture and the securing of improved and cheaper facilities for the shipment of fruits to the markets of the country. The following are the officers elected: President, H. B. Buist; vice-presidents, H. C. Markley, W. H. Goodlette, M. L. Donaldson, A. Carpin; secretary, A. M. Howell; treasurer, H. G. Gilreath. Commenting on this fact, editorially, the paper says: "Greenville is on the right line in establishing a Horticultural Society. By comparison of views and experience the successful cultivation of fruit will be promoted, and, besides, an organized body can generally obtain better facilities for the

shipment of fruits than can be obtained by individuals."

* * *

A handsome semi-monthly called the "Southern Woman" has just been started at Henderson, N. C. In her salutatory the gifted editress puts the matter plainly, thus: "A callow birdling nestles among you; its unfeathered wings eager for flight, eager to penetrate the mysteries of the bright far-off canopy of blue, and revel amid the dreamed-of beauties of the wide, wide world, whispering faith and hope in each vocal breath; what shall be its fate? Shall it mingle its joyous carol with the spicy odors of its native groves, or will you cast it out to seek refuge in some alien woodland, there to warble out its early death lay, unloved, forgotten and alone?" Now, to use the expression of the day, isn't that "just too utterly sweet?"

DRIFTWOOD.

Laurens, S. C., wants a bank. So does Greenwood, S. C.—Some bonds of the new G. & L. railroad sold in Greenville the other day at 95 cents on the dollar.—Strawberries are now abundant in Charleston at from five to eight cents a quart. The finest kind of berries can now be had at eight cents.—The Executive Committee of the Southern Press Association has been in session. Arrangements will probably be made for further improvement in the press service. There is room for a vast deal of improvement in its service from Georgia, the Carolinas and Florida. Its Mississippi and Tennessee service is very good.—Large forces of men are now hard at work on the extensions to the Everett, Duvall and Windsor hotels at Jacksonville, Fla.—The Wadley statue at Macon, Georgia, is finished.—Atlanta people say that they are going to keep on boring that artesian well (which is now so near China) until they strike either water or tea.

Lumbering Operations in Mitchell County, N. C.

BAKERSVILLE, MITCHELL CO., N. C.,
June 12, 1885.

Editor Manufacturers' Record:

The new enterprises in this county are too numerous to mention in a short article. One at the foot of the great Roan mountain is worthy of particular mention. S. B. Searles & Co., Glen Ayer, N. C., are shipping an average of eight thousand feet of cherry lumber per day. This lumber is taken from the mill and drawn directly up the Roan mountain by a tram railway; while one loaded car goes up the mountain another is being let down on the other side,—an engine at the top steadyng movements of the cars. What may be particularly interesting to some of your readers is the ingenious contrivance and arrangements of grooved pulleys at the engine, whereby one cable chain is winding up drawing up a loaded car, the other end is unwinding and letting the loaded car down the other side of the mountain. This is a great saving and convenience for the operator. This ingenious arrangement is not patented, and can be used by any one of your readers that are in a similar business. This same company have a tram road running three miles into one of the gorges of the mountain, where the logs are loaded on the tram cars and brought to the mill by the down grade of the road.

Another new firm, P. M. Smart & Co., are getting out cherry, curled poplar, mountain mahogany and walnut. These and other companies are a great help toward settling up this heavily timbered country. Trees that cost days of hard work to cut and burn up are now bought by these firms and paid for and taken away. We are also greatly benefitted by the help given toward making roads through dense forests. The benefit reaches the advertisers in the MANUFACTURERS RECORD, as one firm has bought a saw mill outfit, advertised in the RECORD and seen in the "Mountain Voice," office here. Other new industries will be mentioned soon.

S. WORTHEN.

New Planer and Matcher.

With a view to meeting the growing demand for a low price machine to do planing and matching, Messrs. Dietz, Will & Co., 189 and 191 W. Pearl street, Cincinnati, Ohio, have brought out a pony planer and matcher, shown in the accompanying cut. This the manufacturers say "is the best machine in the market for doing general work, such as tongue and groove flooring, ceiling drop or patent siding." The description of this machine as taken from their circular is as follows:

"The frame is like that of our pony planer in shape, but is heavier in many parts, cast in one solid piece, thus assuring strength and solidity. The table is also cast in one solid piece, and is fitted to the machine with wrought iron gibbs, which can be adjusted so as to take up all wear which may from time to time occur.

The cylinder head is made of the very best forged steel, and is perfectly balanced and true, so as to run at the high rate of speed which these machines are subject to without vibrating, and the fact the head is of

The Wonderful Development of New Towns in Alabama.

ASHEVILLE,

ST. CLAIR CO., ALA., June 11, 1885.

Editor Manufacturers' Record:

At the time the East & West Railroad was completing its extension to Broken Arrow, in this county, 1883, the Georgia Pacific was also in process of construction from Riverside, on the Coosa river, the natural line between the counties of Talladega and St. Clair, to Leeds, near the boundary line between this and Jefferson counties. These points are, perhaps, about twenty-two miles apart; and for this distance nearly the entire way was a forest in which, comparatively speaking, but few trees had ever been felled by the axe. All along the line of this road are iron, coal, limestone, sandstone and other fine building rock. Pine, oak, poplar and hickory abound in great quantities, and between those points, in this county alone, there are already quite a number of saw mills and coaleries, giving employment to hundreds where before 1883

about eighteen miles from Anniston and about forty-four from Birmingham, Ala., two young cities of such amazing thrift and growth as to excite the wonder of all who visit them and are informed of their quite recent history of progress and development. I believe, situated as it is, that Riverside is the best location for saw mills in this State. Several business houses are connected with this place. Going west on the Georgia Pacific from Riverside about two miles is Seddan, a handsome little town lately sprung into life, with quite a number of pretty residences, several stores and two, perhaps more, saw mills. About six miles west of Seddan is Eden, (modern, of course,) situated right on the edge of the coal fields. It already contains a half-dozen stores, a good hotel and church houses; saw mills have recently been added to its industries. It is a pretty place, well located for growth, and the outlook now is flattering for it becoming a place of considerable importance. Just now there is some talk of the railroad which connects with the Anniston & Atlantic near Talladega being constructed to form a junction with the East & West

After leaving Cook's, Brompton, another promising station-town of new enterprises, is reached; then Leeds, in the Cahaba valley, is next arrived at. Although repetition may create a doubt, I am bound to state the fact that it also shows rapid vitality in its industrial improvement. Leeds is in Jefferson county; so are DeBardeleben's new mines, which employ several hundred hands in the coal fields, and about which it is neither speculation nor an attempt to overrate the rapid development of this section, to add that at or about these mines in the near future a town with its thousands of inhabitants will be built up. GEO. R. CATHER.

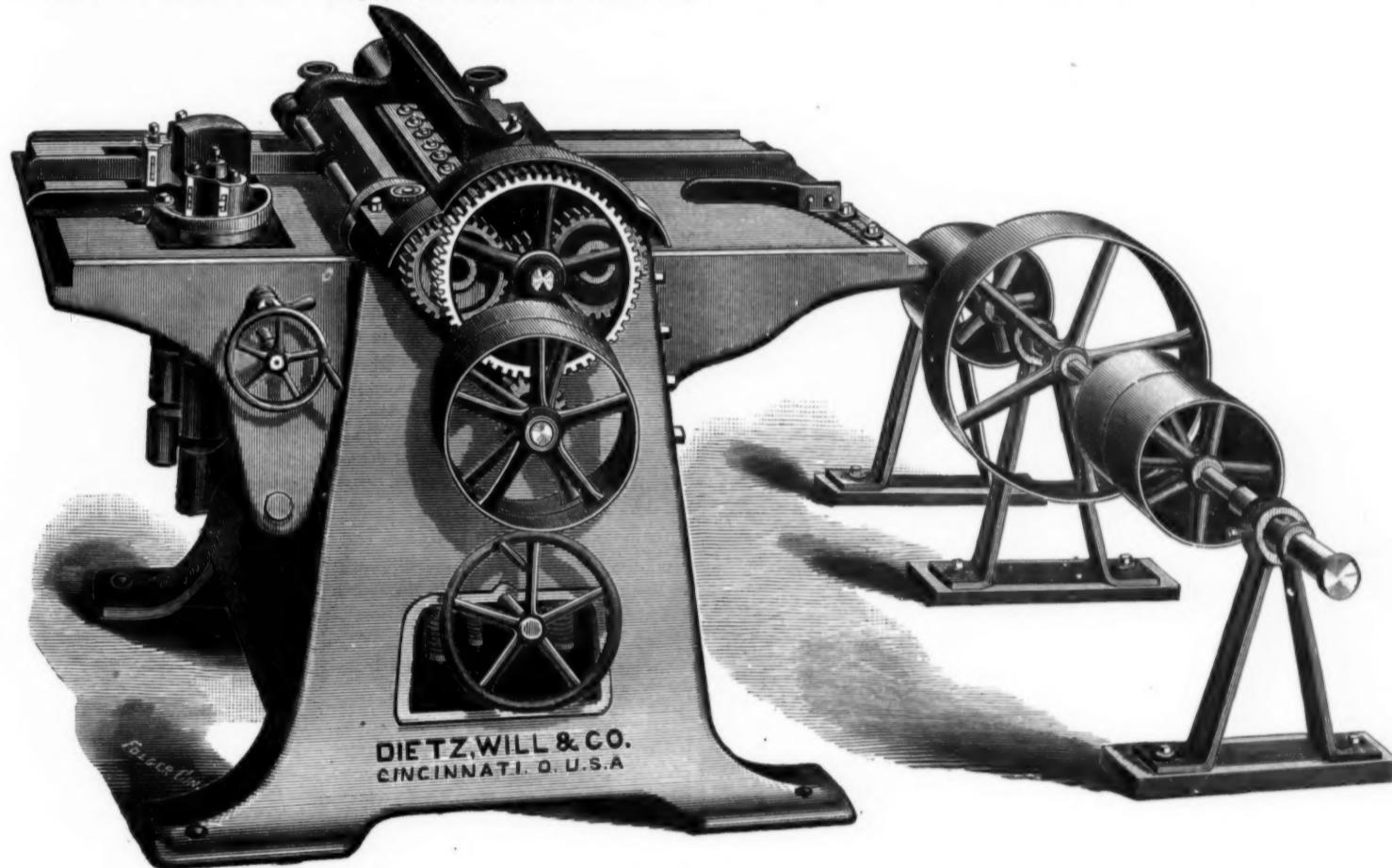
NOTE.—The town at Broken Arrow, mentioned in my last, is Inzer, and the law firm I spoke of is Inzer & Greene. Your Chattanooga friends might inquire for this town and firm, and not be able to find them, and hence fall into the error of regarding them also as myths.

A Railroad Needed.

MOUSE CREEK, TENN., June 4, 1885.

Editor Manufacturers' Record:

About two years ago some parties at Spring City on the Cincinnati Southern



NEW PLANER AND MATCHER.

steel, enables us to turn the journals perfectly round and uniform.

A pressure bar is placed on each side of cylinder, thus insuring steadiness, even when planing short and thin stuff. The pressure bars are self-adjusting, always regulating themselves to the various sizes of thick and thin lumber being planed.

The four feed rolls are made of extra quality of refined iron, the front one being fluted, and are given an even pressure by doubled-coiled springs, and are easily adjusted. The gearing is strong, and every device introduced to make a strong, reliable feed.

The side heads move up and down with table, thereby saving much trouble and expense in separate adjustments. The matcher heads have an improved chip breaker.

The matcher spindles are of forged steel and the heads are supplied with solid milled bits, and has our improved matcher clip fitted to the exact circle of head, thus preventing the breaking out of defective lumber.

This machine is like all other machines of our manufacture—built by men of considerable experience in the wood-working machinery."

but a dozen or more were engaged. The Georgia Pacific passes through much productive land in this county, where corn, cotton and peas grow luxuriantly, and many acres once believed by the old settlers to be nearly worthless, now in cultivation, and without fertilizing, yield readily a thousand pounds of cotton to the acre. The soil is loose and easily cultivated, and much of this land, belonging to the railroads, can be bought at low figures. A great deal of the country in this and adjoining counties along this route is rapidly settling up by thrifty Georgians and South Carolinians.

Riverside is a thriving village, growing up on the west bank of the Coosa river, within the last two years. It already has two large steam saw mills in operation, and there is no reason it should not have a dozen more, as saw logs can be floated down and tugged up the river to this point, and for fifty miles, either way, up or down the Coosa, no finer forests of long leaf yellow heart pine exist anywhere, besides there are to be found in great quantities oak, hickory, poplar, gum and other timbers valuable for the various purposes of industry. Riverside is, perhaps,

railroad at Broken Arrow, in which case it will cross the Georgia Pacific at Eden, and from that point extend up Wolf creek to Inzer, where are located the Broken Arrow mines.

Continuing westward on the Georgia Pacific Railroad the next point deserving mention is Cook's Springs, a watering resort—said to be one of the finest in the world to regain lost health—where there is an abundance of sulphur, chalybeate and free-stone water. This is a pleasant little station town growing up, containing two or three stores and a good hotel to accommodate summer visitors. Cook's Springs is in the hills—it would, perhaps, be nearer the fact to say in the mountains. More than fifty years ago it was frequented as a health resort by the early settlers of Alabama. There can be no doubt that the building of the Georgia Pacific Railroad and the increasing population of contiguous cities and towns, on account of the health imparting properties of its water, picturesque location and other advantages, will make these springs in a short time a famous place of summer resort.

Railroad secured a charter for a railroad to be built from that point to Murphy, N. C. It is strange that such an important line of road has been neglected. The distance is only about 80 or 90 miles. If capitalists would take the matter in hand and complete it, it would certainly be a safe and paying investment. This short line of road would connect Cincinnati directly with South Carolina, North Carolina and Georgia. Along its route are some valuable timbered lands, undeveloped marble quarries, and iron ore of the best quality, and the quantity is inexhaustible. It would also traverse the Tellico Plains, one of the most fertile regions of East Tennessee, and besides it would pass through the famous Tellico iron ores, from which was once forged iron that would compete with any in the market.

P. N. SHULTZ.

In our last issue in the description of a new wood-working machine, manufactured by Egan & Co., of Cincinnati, the name was by the mistake of a printer, made "Stand Planer and Jointer" instead of "Hand Planer and Jointer."

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Thomas Hunton, of New Orleans, La., is negotiating for the erection of an iron furnace in Birmingham, Ala.

The Alice furnace, No. 2, Birmingham, Ala., is being repaired.

The Williamson Iron Co. has been incorporated in Birmingham, Ala., by C. P. Williamson and J. B. Simpson to erect an iron furnace; capital stock \$150,000.

It is rumored that a coffee-roasting establishment will be started in Selma, Ala.

The Gadsden Water Works Co. has been incorporated in Gadsden by A. L. Glenn, president; Samuel H. Toby, vice-president; G. E. Fuller, secretary, and W. G. Brockaway, treasurer; to build water works. Capital stock \$60,000. H. G. Comegys and J. Ensign Fuller, of New York, are contractors.

Mr. Patton, Siluria, Ala., has sold his grist mill, and it will probably be moved near to Helena, Ala.

Daniel Pratt will erect in Wilcox county, Ala., a gin and saw mill for Judge Henderson.

R. N. Waters and J. J. Johns will build a quartz mill in Cleburne county, Ala. Have purchased engine to run the mill.

J. T. Wilson and Hon. G. W. Hewett will erect a four-story building, 75x100 feet, in Birmingham, Ala.

ARKANSAS.

J. A. Crawley, Frank Weeks, D. F. Keeney, G. E. Calkins and D. C. Smith have incorporated the Arkansas & Grand Prairie Railroad, to run from Stuttgart to Beebe, Ark.; capital \$500,000.

A slate quarry near Hot Springs, Ark., will be worked soon.

The Little Rock Oil & Compress Co., Little Rock, Ark., have increased their capital stock \$32,000.

The Morris Mill, Greenway, Ark., has been overhauled by A. J. Stone.

It is reported that a machine shop will be started at Rector, Ark.

The contract for building a school-house at Helena, Ark., has been let to F. A. Rhinehart. It will cost about \$20,000.

The Quita mines in Arkansas will put in two forty horse-power boilers.

A \$10,000 hotel is being built at Nashville, Ark.

The Electric Light Company, Pine Bluff, Ark., will put in a new engine.

FLORIDA.

Charles A. Boone, Shickshinny, Pa., and capitalists of Luzerne county, N. C., it is stated, have purchased 10,000 acres of land in Polk county, Fla., and will build a large saw mill.

Payne, Cook & Co., Highland, Fla., have put additional machinery in their mill to manufacture laths, pickets, &c.

Whipples & Edmonds will add a grist mill and rice cleaner to their saw mill at Highland, Fla.

It is reported that a cigar manufacturer, of Rome, Ga., will move his factory to Tallahassee, Fla.

A large mill is being built at Madison, Fla., which, for the present, will be used as a cotton ginnery, but will be changed, and machinery put in for a saw and grist mill.

A. E. Merrill & Bro. are preparing to enlarge their shops at Jacksonville, Fla.

Miller & Burley, Jacksonville, Fla., are preparing to start a palmetto factory on an extensive scale.

M. L. Osborne has taken charge of the saw mill at Astor, Fla.

The Southeast, Center Hill & Northwest Railroad has been organized in Sumter county, Fla., to build about 362 miles of railroad.

GEORGIA.

The fertilizer factory previously reported as likely to be established in Newnan, Ga., will be started with a capital stock of \$25,000. R. N. Cole, Newnan, can give particulars.

Kelly & Connor, Indian Springs, Ga., and J. H. & W. F. Kinard, Towaliga, Ga., will establish brick yards.

F. M. Gaines has built a saw mill at Hulmeville, Ga.

It is reported that two distilleries will be started near Lifseyville, Ga.

A cotton seed oil mill is projected in Waynesboro, Ga. W. A. Wilkens can give particulars.

George Kinser & Samuel W. Farnsworth will manufacture and sell fruit evaporators in Dalton, Ga.

Ashburn & Parker, Eastman, Ga., are making good progress on their cotton warehouse—machinery is nearly in position.

A ten-stamp mill is being erected at Brass, Ga., by Wooding & Danforth, of the Michigan Mining Co.

J. E. Parkinson & Co., Cassville, Ga., contemplate enlarging their carriage factory.

M. B. McGinty has secured the contract for building the Martin Institute at Jefferson, Ga., to cost \$12,300.

Fred. Scott is building a \$15,000 house, and W. P. Inman a \$30,000 house in Atlanta, Ga.

J. N. Enbry & Geo. A. Pearce have leased the City Mills, Columbus, Ga., and will put in additional machinery.

Messrs. Reinschmidt have started a broom factory at Cullman, Ga.

It is reported that a box factory will be started in Athens, Ga., by Messrs. Gruber.

Kimball, Wheeler & Co., architects, Atlanta, have prepared plans for a \$20,000 court-house for Oglethorpe county, Ga.

Decatur, Ga., is talking of water works.

The Odd Fellows Hall Association, capital stock \$40,000, has been incorporated in Savannah, Ga., to build a hall.

KENTUCKY.

J. A. Neely, Fulton, Ky., has rebuilt his saw mill lately burned.

Frank Costigan has started a small creamery at Helena Station, Ky.

J. O. Clore & Sons have added some machinery to their planing mill at Henderson, Ky.

P. Harris proposes to erect a museum building in Louisville, Ky., to cost \$75,000.

A project is on foot to extend the Lexington, Ky., street railway.

Conn Bros. have put some new machinery in their mill at Winchester, Ky.

LOUISIANA.

A. L. Freret will erect an elevator and irrigating machine on the Aurora plantation, near New Orleans, La.

The Stonewall Rice Co. will put in a boiler and engine to operate a rice mill on Commerce street, New Orleans, La.

The Standard Fireless Engine Co. has been incorporated in New Orleans, capital stock \$100,000, to use and apply ammoniacal gas or other motive power to cars, locomotives, &c. Dr. W. C. Wilson, J. R. McConnell, S. C. Coulon, W. W. Taylor, P. J. McMahon, C. A. Thiel, John T. Purves, C. M. Abrams, John T. Block, Dr. J. A. Thurber, Atwood Violett, William J. Behan, William Golding and J. H. Murphy are the directors.

Charles R. Truslow, of the Good Intent Dry Dock Co., New Orleans, La., has petitioned for privilege of increasing facilities for repairing and building vessels.

MARYLAND.

John O. Phillips, Kent Island, Md., has completed his saw and grist mill.

A new bridge will be built across the falls at Charles street, Baltimore, to cost \$40,000.

A company is being organized as the Maryland Marble Co., capital stock \$200,000, to open and operate a marble quarry near Rohrersville, Md.

David M. Evans, Lonaconing, Md., is building a tram road from his mill to the railroad.

The Baltimore Can Manufacturing Co. has been incorporated in Baltimore, Md., by D. D. Mallory, president; Charles B. Slingluff, vice-president; Christian Devries, treasurer, and W. J. Adams, secretary. Capital stock \$50,000.

MISSISSIPPI.

Work has commenced on the inclines at Vicksburg, Miss., being built by the Queen & Crescent route at an estimated cost of \$70,000.

George S. Irving will erect a large building, 100x30 feet, in Vicksburg, Miss.

A cotton compress company has been organized in Jackson, Miss., to erect a large compress; machinery, it is said, has been bought.

The compress previously reported to be put up at Columbus, Miss., will not be built, the new company having purchased an interest in the old compress company.

The Meridian Sash and Blind Factory, Meridian, Miss., have completed an addition to their factory, 70x160 feet.

A St. Louis contractor will build a \$6,000 jail at Sunflower Landing, Miss.

NORTH CAROLINA.

The rumor of a flour mill to be built at Haw River, N. C., is probably incorrect.

Electric light works are to be established in Charlotte, N. C.

W. L. McGhee, Franklinton, N. C., is making arrangements to manufacture brick.

Geo. E. Nisson & Co., Waughtown, N. C., have commenced building a tobacco factory.

Arrangements are being perfected to erect another scrap and oil factory at Lenoxville, N. C.

The Webster Mica Co. have leased mica property in Jackson county which they will work. A. H. Isbel, of Asheville, N. C., is superintendent.

SOUTH CAROLINA.

H. D. Shoemaker, of Charleston, S. C., has the contract for building the South Carolina Bent Wood Furniture Co.'s factory at Columbia, S. C.

TENNESSEE.

P. M. Bartlett, Maysville, Tenn., has not definitely decided to build a flour mill, but he and others will probably do so.

The purchases of timber land near Loudon, Tenn., lately reported, were made by Barbour & Lyon, who contemplate putting up a saw mill in Loudon.

Fletcher Bros., of Ohio, have bought a saw mill, and will locate near Cloyd's Creek, Tenn.

A creamery has been started at Lebanon, Tenn., and a cheese factory will be added. A fruit canning factory with a capital of \$5,000 or \$6,000 will probably be established in same place.

Work has commenced on a steam mill at Chattanooga, Tenn., for Saml. Blair & F. T. Stewart. The mill will have roller-process machinery, with capacity of 600 bushels a day.

There are prospects of a new handle factory being established in Chattanooga, Tenn.

P. F. Crook, Knoxville, Tenn., will probably develop a mica mine on the White property, near Rock Creek, Tenn., as previously reported.

Williams, Watts & Co. are building a steam grist mill in Medina, Tenn., and will add machinery for a cotton gin in the fall.

The East Tennessee Zinc Co. are putting up an engine, steam drill, crusher, etc., at Mossy Creek, Tenn.

A. J. Patterson has put \$16,000 worth of new machinery in his mill at Home, Tenn.

The building of a steel plant at the South Tredegar Mill, Chattanooga, is being discussed.

James H. Willis, Greenville, Tenn., will erect a \$12,000 building for the Greenville and Tusculum College.

A stock company has been formed to build a large tobacco warehouse in Greenville, Tenn.

TEXAS.

The cotton compress previously reported as to be built in Terrell, Texas, is being erected by R. C. Dansby and A. J. Hardin.

A round-house and machine shops are being built at Walnut, Texas, for the Texas Central Railroad.

A new ice factory is talked of in San Antonio, Texas.

A hospital to cost not over \$22,000 is to be built in San Antonio, Texas.

The Wichita Water Power Co., capital stock \$20,000, has been incorporated at Wichita Falls, Texas.

The Fort Worth & New Orleans Railroad Co. has been incorporated.

The Houston Rolling Mills, Houston, Texas, have been purchased by Sam. Allen. It is reported that the mill will be put in operation.

Work has commenced on the Driskill hotel at Austin, Texas. The cost will be \$250,000.

The contract for building the cotton mill at Forth Worth, Texas, previously reported, has been let.

LOCKWOOD, GREENE & CO.

MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

VIRGINIA.

James C. Langhorne, Salem, Va., will probably complete his roller flour mill about July 10.

The Richmond Co-operative & Commercial Co. has been incorporated in Richmond, Va., to manufacture and sell soap and other commodities, with Joseph E. Lynn, president; J. T. Cosby, secretary; and Thomas Jenkins, treasurer. Capital stock not to exceed \$100,000.

The Schuyler Electric Light Co., of Hartford, Conn., have secured the contract to light Richmond, Va., with their electric lights.

The contract for building the Southwestern Lunatic Asylum at Marion, Va., has been awarded to Lewman & Sweeney, of Columbus, Ind.

The Water Committee, Richmond, Va., have received a proposition from the Newark Filtering Co. to erect a large filtering plant to cost about \$75,000.

The starting of a creamery is being discussed in Roanoke, Va.

Messrs. Martin are reported as having built a woolen mill in Franklin county, Va.

\$20,000 has been appropriated in Lynchburg, Va., to rebuild the market house.

WEST VIRGINIA.

A. Montgomery, George Montgomery, F. Singleton and J. B. Lovell, of Covington, Ky.; J. J. Lovell, Campbell's Creek, W. Va., and Wm. A. Qdarrier, of Charleston, W. Va., have incorporated in West Virginia the Pioneer Railway Co., to build a railroad up Campbell's Creek. Capital stock \$15,000.

The Penn Mather Electric Co. has been incorporated in West Virginia by Wm. C. Wilson, M. H. Alberger and David C. Loyd, of Philadelphia, N. T. Pulsifer and H. G. Cherry, of North Manchester, Conn., to carry on general manufacturing, constructing and trust business. Capital stock not to exceed \$100,000. Principal office to be at Philadelphia, Pa.

E. B. Jones & Bro., Smithton, W. Va., have refurnished their mill with new machinery.

The Longdale Iron Co. will build a railroad from Sewell Depot up Man's Creek nine miles to open up new coal fields.

Mr. Hyde is building a new flouring mill at Proctor, W. Va.

A creamery will be started in the old Smith Brewery, Wheeling, W. Va.

The Free Oil & Gas Co., of Pittsburgh, will drill a well for gas near Moundsville, W. Va.

The stock has been taken and work will begin on the water-works at Morganton, W. Va., previously reported.

BURNED.

The steam gin and grist' mill of D. W. Brown, Brown's Station, Ga.

Smith's Flouring Mills at Ozark, Ark., destroyed by boiler explosion.

Randleman Cotton Factory, Randleman, N. C.; loss \$150,000.

The grain elevator of the Knoxville City Mills, Knoxville, Tenn.; loss \$15,000.

Rimmer Bros' tobacco factory, Statesville, N. C.; loss small.

The saw, grist and carding mill of H. W. Pearson, Alexandria, Ala.; loss \$2,000.

Carriage establishment of S. V. Brown & Son at Dawson, Ga.; loss \$6,000.

The saw mill of Dr. Hester, Madison, Ga., damaged by boiler explosion.

The rice mill of Magin & Allen, New Orleans, La.; loss \$1,000 on machinery.

FULTON, KY., June 12, 1885.

Editor Manufacturers' Record:
I have rebuilt my saw mill which was burned May 20th, and am now ready to commence sawing again. I. A. NEELY.

Coal Mining at Dayton, Tenn.

DAYTON, TENN., June 11, 1885.

Editor Manufacturers' Record:

I leased about 6,300 acres of coal land to Messrs. Bowen, Jones & Co., who are to pay $\frac{1}{4}$ cent royalty for each bushel coal and iron ore and one-quarter of a reasonable rent for all houses built. Said lease runs 99 years, and the forfeit is stopping work for 30 days at any one time. Work is to commence by 1st July, 1885. The parties are here at work now; their address is Dayton, Tenn.

W. G. ALLEN.

MARYVILLE, TENN., June 8, 1885.

Editor Manufacturers' Record:

We have not yet decided to build a roller mill, but I presume it will be done, at an outlay of \$12,000 to \$15,000. We are getting information preparatory to action.

P. M. BARTLETT.

ALTAMONT, FLA., June 8, 1885.

Editor Manufacturers' Record:

The outfit at Winter Park will embrace saw mill and planing machinery suited to the making of building lumber for local trade entirely. Capacity of this mill at present is about 6,000 feet per day, with facilities to double this quantity if necessary. Coupling this with our Altamont mill, we can turn out about 15,000 feet daily.

MOVERS & WILSON.

A Full Roller Flour Mill.

SALEM, ROANOKE CO., VA., June 1, 1885.

Editor Manufacturers' Record:

I am now putting in a full roller mill, with all the improved machinery necessary to make it first-class. The work is being done by Stilwell & Bierce Mfg. Co., of Dayton, Ohio. The work will be finished and mill ready to grind by 10th July.

JAMES C. LANGHORNE.

DELTA, PA., June 11, 1885.

Editor Manufacturers' Record:

We are now putting up, in addition to our slate factory, a mill for the purpose of grinding slate debris for making paint and roofing.

ANCHOR SLATE CO.

A Correction.

MONTGOMERY, ALA., June 10, 1885.

Editor Manufacturers' Record:

Mr. D. H. Caswell is building our mill at Mobile. MONTGOMERY OIL WORKS.

[We lately reported that Mr. D. H. Caswell would build a cotton seed mill at Mobile, and also that the Montgomery Oil Works would build a mill at Mobile, and stated that it was probably one and the same mill, Mr. Caswell being the builder and the Montgomery Works the owners, but the latter company wrote us that we were mistaken. The above note, however, makes another correction, and states Mr. Caswell is building the mill of the Montgomery Oil Works, thus putting the matter as we first reported it. Mobile is thus to have one new cotton seed oil mill, and not two.—*Editor MANUFACTURERS' RECORD.*]

LANCASTER, DALLAS CO., June 9, 1885.

Editor Manufacturers' Record:

I have purchased the Rockwall Mills property; and others, with myself, will not repair but change the mill into roller mill, complete in all its parts for making the best flour Texas wheat will afford, on the Odell new roller mills system—35 to 50 barrels. Mills ordered 4th inst., and will be ready for work by 15th Aug. Cost \$11,000 to \$12,000. Firm, Beckly, Moffett & Co.

H. J. MOFFETT.

A Coal Mining Company.

WARRIOR, ALA., June 8, 1885.

Editor Manufacturers' Record:

The Hoene Warrior & Jefferson Coal Co. was incorporated in May, 1885, and commenced operations June 1st. Property is in working order; output from 300 to 400 tons daily. Capital stock \$100,000, all paid in; 700 acres coal lands, all on L. & N. Ala. R. R.; three different veins of coal worked on same.

B. H. T. HOENE.

TOWALIGA, GA., June 10, 1885.

Editor Manufacturers' Record:

Messrs. Kelly & Connor, Indian Springs, Ga., will begin to manufacture brick in a few days, and J. H. & W. T. Kinard, Towaliga, Ga., will also begin to manufacture brick in a short time. KINARD & SON.

A \$25,000 Fertilizer Factory.

NEWNAN, GA., June 13, 1885.

Editor Manufacturers' Record:

A guano factory will be erected here soon, to begin with capital stock of \$25,000.

R. N. C.

FRANKLINTON, N. C., June 15, 1885.

Editor Manufacturers' Record:

I have just completed a large and commodious brick tobacco warehouse, and will begin making brick July 1 for sale and with view to building a brick store.

W. L. McGHEE.

A Furniture Factory Wanted.

JOHNSON CITY, TENN., June 10, 1885.

Editor Manufacturers' Record:

We are contractors and builders and manufacturers of sashes, doors, &c. There is abundant material here for a furniture factory, so far as valuable timber is concerned, and we believe that such an enterprise would be successful. We are simply experimenting a little in that line, and one of our enterprising city editors has, perhaps, been a little previous in his mention. If any readers of your valuable paper would like to join in, we think it would pay them to investigate the facilities of Johnson City for any wood-working business. Two gentlemen from Wisconsin, who have been prospecting for several weeks throughout the South for a site for a steam engine factory, are now here, and appearances indicate their satisfaction with this point, and their purpose to put their plant here.

GRANT, STEVENS & CO.

A New Ore Mine.

REDDING, ALA., June 6, 1885.

Editor Manufacturers' Record:

We are opening a new mine about a quarter mile distant from the main works. Will be putting out ore from it in 3 or 4 weeks.

MORRIS MINING CO.

A Cotton Compress in Terrell.

TERRELL, TEXAS, June 8, 1885.

Editor Manufacturers' Record:

A cotton compress is being built here by A. J. Hardin and myself.

R. C. DANSBY.

Another Coal Mine.

PIEDMONT, W. VA., June 10, 1885.

Editor Manufacturers' Record:

We are now working one seam of coal at Thomas, Tucker county, W. Va., and will soon be working another seam near Thomas.

H. G. DAVIS & BRO.

GAINESVILLE, GA., June 10, 1885.

Editor Manufacturers' Record:

I have sold my gold mine to Nelson F. Dexter and Joseph Britton, both of New York City. Address Continental Hotel, 20th street, Broadway.

D. M. STRINGER.

Rapid Improvement in Columbia, S. C.

COLUMBIA, S. C., June 12, 1885.

Editor Manufacturers' Record:

Messrs. Oliver Bros., now running oil mills at Charlotte, N. C., are building a \$75,000 oil mill here, which will be ready by October 1st for operating. The Columbia Cotton Compress are doubling their capacity for the coming season. The Vienna Bent-Wood Factory have purchased ground near the above enterprise, and have given out contracts for the erection of extensive buildings for the manufacture of bent-wood furniture. This location on the southwest boundary of the city which was all vacant two years since will by November 1st have \$250,000 of buildings and machinery on it.

R. N. LOWRANCE.

A Planing Mill.

JEFFERSON, TEXAS, June 13, 1885.

Editor Manufacturers' Record:

We expect to put up planing mill at Greenville, to handle lumber for both Texas and Kansas trade, and will probably be at work at same within next 30 days.

J. H. BEMIS,
Sect'y Jefferson Lumber Co.

Non-Agricultural Population Needed.

The MANUFACTURERS' RECORD has persistently labored to show that it is not so much an immigration of farmers that the South needs as the immigration of mechanics and others engaged in non-agricultural pursuits. The evils of the all-cotton system would quickly disappear and the financial condition of Southern farmers rapidly improve, if a good home market could be found for all the diversified products—butter, eggs, poultry, fruit and vegetables—that can be produced so abundantly in the South. As it is now, in a large part of the South cotton is the main crop, for which there is always a cash demand. The South needs manufacturing towns to consume the diversified products of the surrounding farms, and this point is admirably stated by that ever clever writer, "Bill Arp," a Georgia farmer, who says in a letter to Home and Farm:

"There is nothing that will settle the tariff problem like manufactures mixed up with agriculture and scattered all over the land. Give the farmers a good market and they will thrive and be happy. Manufactures do that; they do it all over the North. A farmer can sell anything here, but we can't sell anything here but cotton. We buy everything from the North, and so the North has two markets—a home market and a foreign one—while we have neither. I can't sell my vegetables nor my fruits, and my wife can't get but fifteen cents for her chickens and ten cents for her eggs."

Mr. Stahl says that we want German labor—German farmers. I say we don't—we have farmers enough—we want manufacturers of all sorts of little things and big things. Look at Anniston. Ten years ago the farmers near there were all poor—they hauled their cotton to Rome—but now they have a home market for everything. Their lands have gone up 100 per cent. in price. The manufacturers at Anniston did it. We ought to make all these little things that we buy at the North and be independent, and when any of our people make a venture in manufacture we ought to encourage them. Buy from them, help them up. There are 5,000 people at Anniston who don't raise anything to eat, and so the neighboring farmers have to feed them, and this gives a good market for everything they can raise—a pig, a sheep, a calf, or a basket of beans or potatoes, or peaches or berries. It is these little things that make the farmer money. It is not cotton.

A North Carolina Mountain Town.

HIGHLANDS, N. C., June 10, 1885.
Editor Manufacturers' Record:

This locality first attracted attention from its healthfulness and climatal influence over consumption, liver and kidney diseases. From these considerations a number of Northern families, afflicted mostly with lung troubles, were induced, as a *dernier* resort, to come here, and the result in a majority of the cases was a complete restoration to health. A number of them after getting well were so well pleased with the results, so delighted with the mildness of the winters and the cool and pleasant summers, that they determined to remain; so in the then almost unbroken forest, in 1877, the town of Highlands in Macon county, N. C., on a plateau on the summit of the Blue Ridge, at an altitude of 4,000 feet above tide-water, was laid out and it is to-day a flourishing mountain town, with 300 inhabitants, five stores and a good hotel. As a summer resort it is unequalled on this continent. Nearly every State in the Union is here represented, while England, Ireland, Germany and Sweden are not left out. The scenery is magnificent and grand, while the flora is excelled by no other region, as regards variety, beauty and usefulness, medicinally. The florescent kalmias and inflorescing rhododendrons now give miles of beds and snow-like banks of the most beautiful flowers, while the atmosphere is filled with an aroma most pleasant and delicate from the petals of myriads of flowers.

The mountainous topography of this section makes agriculture practicable only on a small scale, while it does seem that nature designed this locality for three things especially, namely: a sanitarium, fruit-raising, wool growing; and dairying should be added, for it has the very best essentials for successfully conducting that industry. There are other things here that are bound to materially aid in developing this country, and they may be found in the variety of its minerals; in its beautiful quartz, crystallized in hexahedral pyramids; in various places is the amethyst, and great quantities of that fibrous variety of hornblende, with its silvery lustre, known as asbestos, abounds. Alumina is here in its crystalline state, which in hardness is next to the diamond. The grey and brown crystalline and sand corundum seems very plentiful. While corundum is the richest known substance in alumina, yet these grey and brown cryolites contain more of its metallic base, aluminium, than any other material known. The prominence that aluminium is about to take in the arts is sure to render the deposits here very valuable at an early day, particularly when it is known that aluminium is more plentiful in and can be more easily taken from corundum than any other substance. Its extraction heretofore has been difficult and expensive, making it cost from \$15 to \$25 per pound; consequently its use was limited, but recent improvements seem to warrant the belief that it will soon be obtainable for use at \$3 a pound. It is a white, tenacious, elastic sonorous metal, that neither corrodes nor tarnishes, and combines readily with any other metal. Gold, iron and mica are found in divers places, yet only the latter is worked.

The town of Highlands is destined soon to be one of the most noted natural sanitaria in this country, with its high altitude; its refreshing and bracing zephyrs; its pure, icy cold water; its chalybeate and lithia springs; surrounded with the most gorgeous mountain scenery; thus with its grandeur and magnificence rendered sublime by nature's hands, it cannot fail to attract, to please and relieve suffering humanity.

J. W. WALKER.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

Patent Adjustable Loose Pulley Arrangement.

The accompanying illustration shows an excellent device manufactured by Mr. Geo. V. Cresson, 18th and Hamilton streets, Philadelphia, by the use of which the annoyance of running loose pulleys is avoided, thus ensuring economy, durability and safety in machinery. It is known as the "Patent Adjustable Loose Pulley Arrangement," and is intended for use where it is desirable to avoid the running of belting, and the annoyance and expense of running loose pulleys, when machinery or lines of shafting are not in use.

By the use of the "Patent Adjustable Loose Pulley Arrangement" there is a direct saving of power, belting, oil, wear on loose pulleys and shafts, and much time and labor necessary to lubricate loose pulleys which are constantly running; it also renders it impossible for fire to occur from loose pulleys becoming heated for want of oil or attention; the line shafting is also relieved of strain when the machinery is not in motion. The saving in power in a factory fitted up with this "pulley arrangement" over the one fitted in the old way with loose pulleys and belts, constantly in motion, is claimed to be, on an average, 25%, and the cost of each is saved in the first year, divided *pro rata* between power, belting, lacings, oil, labor, and repairs to loose pulleys. With this "arrangement" in use, loose pulleys will last almost a life time.

The loose pulley is supported on a sleeve

New Steel Works in the United States.

Contracts have been made for the erection of a Bessemer steel plant at Mingo Junction, Ohio. It will be operated by the Junction Iron Company and the Laughlin Nail Company, Samuel Laughlin being president of the former company, and his brother Alexander of the latter. The plant is to be completed in September next. Its location will be near the blast furnaces of the Junction Iron Company, which will make the Bessemer pig iron needed. A part of the equipment, embracing two 5-ton converters, three 8-foot cupolas, a 34-inch reversible blooming mill with hydraulic tables and lifting apparatus, a pair of 28 by 58 reversing engines, and blowing engines with 34-inch steam and 48-inch air cylinders and 5 foot stroke, will be built by McIntosh, Hemphill & Co., of Pittsburgh, with C. Amsler, M. E., late of the Riverside Iron works, in charge of the construction and supervision. Eight Holley cranes will be built by Morgan, Williams & Co., of Alliance, Ohio. Twelve boilers and an iron building 80 by 150 feet, for converting department, engine and ganister houses, etc., will be supplied by Riter, Conley & Co., of Pittsburgh. Four duplex pressure pumps will be from Epping, Carpenter & Co. The hydraulic apparatus, pipes, valves, etc., will be furnished by Atwood & McCaffrey. The daily capacity will be 300 tons of nail slaps. The two companies, whose offices are at Wheeling, West Virginia, though their works

It has been very widely reported that Messrs. Chess, Cook & Co., of Pittsburgh, have arranged for the erection of steel works at a site which they have purchased near the Edgar Thompson Steel Works, at Braddock, Pa. We are informed, however, that it is not their intention to erect a steel plant at present. They will build a mill for rolling steel plates for nails, but they propose to buy the necessary steel slabs until next season when they may decide to erect converters.

Messrs. Shoenberger & Co., owners of the Juniata Iron and Steel Works, at Pittsburgh, are erecting a Bessemer steel plant, of which we are promised a complete description when the work of erection has made greater progress.

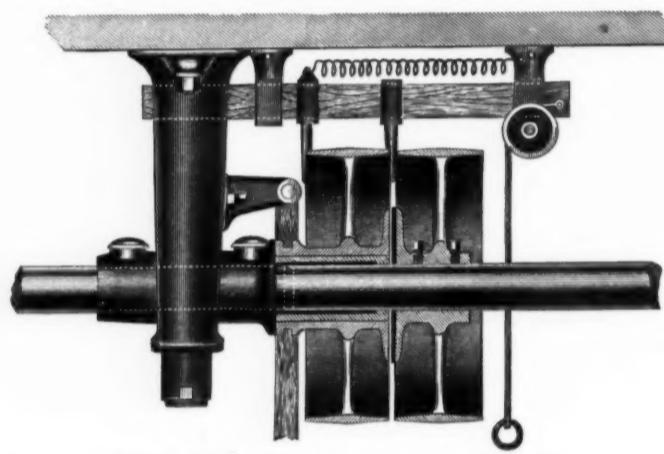
Other iron manufacturers at Pittsburgh, Wheeling, and points further West are earnestly considering the advisability of adding steel plants to their iron works. In some cases the only matter to be settled is the process to be adopted.

In the East a number of owners of iron works will add steel plants of various kinds during the year. The Cedar Point Iron and Steel Company, of Port Henry, New York, has contracted for the erection of a Clapp-Griffiths plant to be operated in connection with its blast furnace, being first in this country to take this new departure. The Pottstown Iron Company is erecting a building at Pottstown, Pennsylvania, to contain its steel plant, the character of which has not yet been made public. The Danville Nail Manufacturing Company, also of this State, has appointed a committee of its directors to investigate the several steel-making processes with a view to the adoption of the most suitable for its purpose. Other Eastern parties are making inquiries concerning the cost of building steel works, but have not yet decided to enter upon the work of erection.

The steel question in the East is on a different footing from that in the West. Here it appears to be a question of quality of product rather than of cheapening the cost of manufacture. Iron can still be worked in this section at a lower rate than that at which steel can be converted, owing to the lower wages paid to rolling-mill employees in the East as compared with those paid in the West, where steel is produced more cheaply than iron in certain lines of product. Hence the tendency to add steel plants to Eastern iron works is thus far not specially remarkable.—*Bulletin American Iron and Steel Association.*

List of Patents

The following Patents were granted to citizens of the Southern States, bearing date June 9, 1885. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.



PATENT ADJUSTABLE LOOSE PULLEY ARRANGEMENT.

which forms part of the hanger; on one end of the hub is a flange, while on the tight pulley is a similar flange; between these two flanges is a rubber disk; to get the sleeve pulley in motion it is pressed, by means of the lever, against the tight pulley, and by frictional contact receives a rotary motion; at the same instant the loose pulley revolves it causes the belt to move, and simultaneous with this rotary motion the belt is shifted to the tight pulley by the automatic shifting device; when the belt has passed to the tight pulley the loose pulley comes to rest, and *vice versa*. The belt is shifted on the loose pulley by means of a suitably arranged cord or other shifting device, according to location. The starting and stopping of the loose pulley can be done at any distance from the machinery to be operated.

The economy of this device, where high-speed machinery is in use, is especially apparent, and for this reason it is being rapidly adopted by first-class saw mills and electric light plants. It is to a great extent a substitute for friction clutch pulleys, and is said to be cheaper and more economical for two reasons:

"First.—The clutch pulley, when disconnected, must either run on the shaft same as the ordinary loose pulley; or,

"Second.—If it is attached to the driving shaft, when disconnected the pulley comes to rest, but the shaft continues to revolve in the pulley, requiring much attention and causing wear on shaft and pulley."

This is all overcome in the "Patent Adjustable Loose Pulley Arrangement," when the machinery in operation is stopped then all expense and attention ceases. Further particulars can be obtained from the manufacturer.

are in Ohio, are extensive manufacturers of nails, and they expect their joint product of steel nails to be 2,500 kegs daily when their arrangements are completed. The erection of the new steel plant will involve an expenditure of \$260,000.

The Western Nail Company, of which General W. H. Powell is president, has contracted with James P. Witherow, of Pittsburgh, for the erection of a Clapp-Griffiths steel plant at Belleville, Illinois. The building will be constructed entirely of iron, and its dimensions will be 90 by 120, divided into two compartments. In one compartment will be contained a hydraulic metal hoist, two cupolas with provision for an additional one when required, two 3-ton converters, two 10-inch hydraulic rams to elevate bottoms, and the necessary hydraulic cranes for handling ladles, ingots, etc. In the other compartment will be the boilers, blowing engines, cupola blowers, pumps and accumulators, repairing room, etc. The cost of this steel plant, fully equipped for producing 125 tons of steel ingots per day of 24 hours, is estimated at \$75,000. The capacity of the new steel plant will be forty tons per day greater than the present capacity of the nail works, but it is the purpose of the company to increase the nail-cutting department. This will require a total of 231 nail machines, being seventy-eight more machines than are now in operation. The Western Nail Company has already achieved a high reputation for its wonderfully large production of nails. In the year ended June 1st it made 342,434 kegs.

Barbour, Pollock, Louisville, Ky.	Bridle-bit	319,439
Barnes, Chas., Dayton, Ohio.	Automatic fire-extinguisher	319,974
Bassyns, Joseph, Baltimore, Md.	Fire-proof hour	319,670
Calder, James, and R. W. Courtney, Richmond, Va.	Implement for applying baggage and car seals	319,459
Clinton, Chas., Spring City, Tenn.	Railway-switch	319,675
Cochrane, Samuel, Arlington, Va.	Veterinary surgical instrument	319,454
Cole, W. E., Montgomery, Ala.	Lumber-drier	319,677
Conner, F. M., Henrico county, Va.	Clothes clamp	319,563
Conway, Jesse, Baltimore, Md.	Vehicle-axle nut lock	319,563
Crisler, Bascom, Crawford, Miss.	Tire-tightener	319,885
Downs, J. W., Bowdon, Ga.	Fertilizer and seed distributor	319,469
Elmer, Jacob, Biloxi, Miss.	Compound splitting for wharves and bridges	319,471
Fetters, David, Baltimore, Md.	Glass-furnace	319,688
Ereeman, M. T., Richmond, Va.	Calculating instrument for percentage and proportion	319,808
Garrett, W. T., Johnstown, Va.	Potato-digger	319,478
Hanson, D. B., Charleston, S. C.	Cotton-harvester	319,710
Johnson, A. G., Quitman, Ga.	Running-gear for vehicles	319,821
Jones, Wiley, Norfolk, Va.	Boot and shoe-stretcher	319,595
Leonhardt, William and J. H., Waverly, Md.	Dumping wagon	319,497
Magee, S. H., Galveston, Tex.	Rope-clamp	319,591
Martins, Taylor, Sturz's Mills, W. Va.	Churn	310,831
Milburn, Henry, Jr., Talbot, W. Va.	Churn-holding device	319,834
Muncaster, W. J., Cumberland, Md.	Metal bending and straightening machine	319,603
Nelson, J. C., Marion, Ala.	Cultivator	319,609
Nutt, S. P., Natchez, Miss.	Telephone-transmitter	319,927
O'Conner, Patrick, Mt. Savage, Md.	Steam boiler	319,842
Repass, W. H., and J. B. Currin, Pulaski Station, Va.	Combined plow and harrow	319,691
Rust, E. G., Grand Prairie, Tex.	Sash-holder	319,599
Scott, J. O., Tyler, Tex.	Car-axle box	319,514
Tate, Wm., Winston, N. C.	Grain and seed separator and grader	319,528
Thompson, G. H., Frostburg, Md.	Roller skate	319,530
Thompson, J. P., Phenix, Md.	Loom shuttle	319,866
Walker, C. T., Atlanta, Ga.	Machine for stripping peanuts	319,762
Wetherville, C. F., Woodville, Miss.	Balanced slide valve	319,649
Whitehurst, R. W., Norfolk, Va.	Plow	319,872
Wilson, Robert, Greenup, Ky.	Millstone-dress	319,652

MAGNIFICENT PROSPECTS.

The Southern Press on Southern Crop Prospects.

A Promising Outlook for Wonderful Crops.

The condition of the growing crops and their prospects are just at present matters of universal interest, as upon the final yield will depend the business interests of the country. Good crops naturally make good business, and hence it is particularly gratifying to note that in the South, at least, the indications are promising for an excellent yield of corn, cotton and fruits. Wheat is a partial failure in all parts of the country, but the importance of this crop in the South bears little or no comparison to the importance of corn and cotton. With a view to showing something of the present outlook for the corn and cotton crops, we have gathered from the Southern papers a few extracts upon this all important matter. In our last issue we gave a summary of the report of the National Cotton Exchange, showing a more than usually favorable outlook for cotton on June 1st, and elsewhere we present a few speculations as to the possible yield, should the present favorable conditions be continued till the gathering of the crop. The following extracts will prove of interest.

A FLATTERING PROSPECT.

The crop report for the month of May issued June 9 by Messrs. Hill, Fontain & Co., of Memphis, Tenn., says: The condition of growing cotton and corn crops in the Memphis district, which embraces West Tennessee, North Arkansas, North Mississippi and North Alabama, up to the closing of May, presents on the whole a most flattering prospect. The report is the aggregate of 338 responses to letters of inquiry sent out May 28, the replies bearing an average date of June 2. The weather throughout the district has been varied. In Arkansas and Tennessee cool nights during the first half of the month were unfavorable to the cotton, and the plant in these two States is somewhat backward. Mississippi and Alabama report favorable weather during May, and both the cotton and corn crops are in fine condition. Generous rains fell throughout the district during the latter portion of the month, followed by warm weather, which had a most beneficial effect, and the month of June was ushered in with prospects regarding both cotton and corn of a most promising nature. This is particularly true of corn, which in all the four States is reported exceptionally fine, and with favorable seasons the planters of this district will produce the largest yield of this cereal ever known in the history of farming.

BEST SINCE THE WAR.

A Mississippian of extensive acquaintance with the business affairs of his State reports the agricultural outlook of all that section of the South as decidedly the best since the war. Labor is in good form, everybody is hard at work, and the farming prospects, especially for cotton and corn, are encouraging beyond all post-bellum precedents. Cotton and other crop advices from Alabama are almost if not quite as flattering as those of Mississippi. Arkansas and Texas had nothing but what was highly favorable to report until last week, and the returns indicate a maximum area for cotton and other crops. The damage of last week will probably not detract much, if anything, from the ultimate outcome, as replanting is entirely practicable at this stage of the season on any necessary scale. Reports from Georgia are more diverse than those from the Central and Southwestern States, where three-fourths of the cotton crop is produced; but on the whole both Georgia and the Carolinas have an apparently fair promise. All Tennessee

crops, except wheat, are in good condition. The agricultural indications for the South indicate, to use a whistlike simile, that Dixie has at least taken the first trick.—*Louisville (Ky.) Courier-Journal*.

BEYOND THE AVERAGE.

The wheat crop in Texas is unusually large in acreage and far beyond the average in yield per acre.—*Marshall (Texas) Herald*.

MOST PROMISING CROP.

In the reports of the crops, Washington, Issaquena, Bolivar, Sharkey and Sun Flower counties are very favorably mentioned. The corn crop is considered the most promising crop we have had for several years.—*Correspondent Memphis (Tenn.) Avalanche*.

LOOKING WELL.

Harvest is now in progress in Clarke county, and oats are turning out much better than last year, and an average crop will be made. Wheat is free from disease and better than expected. Corn and cotton are badly in the grass, but looking well.—*Augusta (Ga.) Chronicle*.

MORE CORN THAN IN 4 YEARS.

There will be more corn raised in Manatee county this year than was raised altogether in the past four years.—*Pine Level (Fla.) Times*.

MOST ENCOURAGING REPORTS.

From almost every section we hear the most encouraging reports from the corn, oats and grass crops, while the garden "sass" is simply immense.—*Carlisle (Ky.) Mercury*.

GROWING MAGNIFICENTLY.

Most of the farmers have their corn well-worked, which is growing magnificently with the propitious weather of the past month. Fruit prospects are very fine in Owen, with exception of peaches. Very encouraging reports come from all quarters of the country regarding the 1885 crop of tobacco. Farmers have had splendid seasons the past two weeks and a great many have their crops out from two to three weeks earlier than common, and a good stand is reported.—*Owen (Ky.) News*.

ALL O. K.

The rain of yesterday was of advantage to cotton and corn and no damage to small grain. Collin county is all O. K. on crops.—*Dallas (Texas) Herald*.

LOOKING FINE.

Corn is looking fine, and our farmers are working hard to keep it out of the grass. We have the heaviest fruit crop we have had for a long time. It is impossible for the trees to hold up the fruit.—*Blairsville correspondent Atlanta Constitution*.

INDICATIONS GOOD.

The recent rains have been very beneficial to the crops, especially to wheat, oats and corn, in Southern Virginia. The cool weather which followed the rain is drying wheat out finely. The indications are that the yield will be large.—*Lynchburg (Va.) News*.

PROSPECTS VERY GOOD.

Cotton and corn prospects are reported very good. Wheat and oats better than could have been expected. Some farmers are behind on account of excessive rains. Day laborers are in demand at a good price. *Zebulon correspondent Barnesville (Ga.) Gazette*.

LARGER THAN ANTICIPATED.

Terrell county farmers are busy harvesting grain. The yield will be much larger than was first anticipated.—*Savannah (Ga.) News*.

BETTER THAN EXPECTED.

Our corn has come up most excellently, needing but little replanting. We are now having it very seasonable in this section and vegetation is improving very much. The wheat and clover are heading out very nicely, and both cereal and grass crops will be much better than was expected some time ago.—*Shipley correspondent Westminster (Md.) Advocate*.

A FINE SEASON.

Our farmers are having a fine season for transplanting tobacco plants. The wheat crop is much better than was expected some time since. The oat crop is a failure.—*Hickory (N. C.) Press*.

FINEST EVER BEFORE SEEN.

The news comes from every quarter that the crops are the finest ever before seen in this section of the country. Cotton squares are always due about June 10, and considered very forward if they reach here in that time; have now appeared on June 5, which will put cotton blossoms July 1, and a farmer has heretofore been fortunate to get a blossom July 4. The wheat and oat crop has been brought out by the late rains beyond the expectations of all the farmers. The gardens are the finest ever before seen in this part of the State. The farmers are considerably in the grass, but they will work out. The prospect is indeed fine.—*Athens (Ga.) Banner Watchman*.

A FINE PROSPECT.

Weather very warm. A light shower of rain fell yesterday. Crops in fine condition. A ride of about 25 miles through the eastern portion of the county to-day gave the Herald correspondent an opportunity to see the condition of the crops. Fully 90 per cent. of the cotton is in very good condition. Corn promises the largest crop ever known in this section. About three-fourths of the wheat has been cut and I am informed will average about 30 bushels to the acre.—*Ennis correspondent Dallas (Texas) Herald*.

The largest crop of oats ever raised in this county is now being harvested, the average yield being fifty bushels to the acre, while many fields will run as high as 100 per acre.—*Corsicana (Texas) Correspondent New Orleans Times-Democrat*.

All the crops of Randolph county, Ark., are good except wheat. The oat crop of Benton county this season will be the largest ever harvested. The farmers of Howard county never had more flattering prospects for a crop.—*New Orleans Times-Democrat*.

The weather in the section around Lake Providence, La., has been very favorable for both cotton and corn, and farmers hope for as large a crop as in 1879. Cotton is fully two weeks ahead of last year in cultivation, and averages about equal in size. Some farmers have knee-high cotton, which will show blooms in two or three days.—*New Orleans Times-Democrat*.

An observant gentleman says that the prospects of fine crops in this section (Columbus, Ga.) were never better than at present. The fear of damage by too much rain is premature.—*Atlanta Constitution*.

Good rains and pleasant weather make our crops more beautiful than ever, and we smile and can't help it.—*Port Deposit (Md.) Correspondent Greenville Advocate*.

Cotton, corn and garden vegetables have made wonderful growth.—*Newton (N. C.) Enterprise*.

Notwithstanding the heavy rains of last week, the crops are not damaged, and cotton continues as promising as was ever seen.—*Wadesboro (N. C.) Intelligencer*.

The wheat crop will be very light, owing to the poor stand. Winter oats will not be worth cutting. Spring oats are looking well, so is corn, also gardens.—*Graham (N. C.) Gleaner*.

Cotton is improving rapidly under the genial rays of the summer sun, and may entirely recover from the effects of cold weather. Late cotton is looking remarkably well.—*Beaufort (N. C.) Telephone*.

From the present outlook the cotton crop of Avoyelles parish will be the largest since 1874. Cotton is well advanced and growing rapidly. A great many of our farmers report blossoms.—*Eola correspondent (N. C.) Times-Democrat*.

[From *The Enterprise, Beaumont, Texas*.]

DALLAS has been visited by fine showers of rain, each lasting at least about an hour. It is not believed that these showers will prove injurious to small grain, while they must vastly benefit cotton and corn, the latter of which is almost now insured. Prospects were never better in this section of the State for full crops in all directions.

NACOGDOCHES.—The crop prospects of this and adjoining counties are excellent. The late favorable weather has enabled farmers to get them in first-class condition. The overflowed bottom land here came out wonderfully, and altogether the outlook is most bright and promising.

GAINESVILLE.—The worms commenced eating the cotton in the fields around Gainesville, Sunday, and many crops are already gone, and the destroyers are still vigorously at work. They have not hurt corn much yet, but it is feared that they will destroy it, too.

HARROLD.—The wheat and oat crop in this country is excellent, and is estimated to yield 20 bushels of wheat and 60 bushels of oats per acre. This is the first year that any small grain has been tried.

CUERO.—Crops are in very good condition.

JACKSONVILLE.—A splendid rain visited this section, which will be of great benefit to the crops.

SAN ANTONIO.—Reports from all portions of this section are uniformly to the effect that crop prospects were never better heretofore at this season. The yield of small grain is unusually large. Cotton is blooming and fields clear of weeds. Cattle and sheep are fat, and the range all that the most exacting could desire.

LIVINGSTON.—For the last week we have had fine weather for working crops. All the cotton is young; it is looking fine. The crop prospect is a great improvement over last year's.

SALADO.—The weather continues fine, and farmers are making good progress with their work.

STEPHENVILLE.—Farmers are extremely busy with harvesting, and with their cotton and corn crops.

GIDDINGS.—The weather is still fine for farming, and farmers are taking advantage of the same.

SULPHUR SPRINGS.—Crops are fine, but a little rain would help considerably just now.

TYLER.—The weather is very warm here now, and crops are growing finely.

WEATHERFORD.—The farmers are harvesting their immense crop of wheat.

SEALY.—There are fine prospects of good crops west of the river.

COLUMBIA.—Crops are looking well, but are needing rain.

Crops in Pierce county are unusually fine this year. Corn, cotton and watermelons are all forward, and give promise of an abundant harvest.—*Savannah (Ga.) News*.

Small grain is being harvested, and we have a prospect of an immense crop of grain. Cotton is also doing fine. Some farmers are complaining of the cut worms doing some damage to cotton.—*Taylor correspondent Austin (Texas) Statesman*.

The recent rains have very much improved all kinds of crops. The wheat fields that a few weeks ago looked to be a perfect failure now look well. The oats that looked as if they would be too short to cut have stretched up and promise a fair crop. Corn and cotton look well. Our farmers and merchants are now wearing smiles in consequence of the good crop prospects.—*Kingston correspondent Cartersville (Ga.) Courant*.

The tobacco crop prospects in this section are bright. The plants are growing rapidly. The wheat crop, though good in certain places, is generally poor. But the crops, taking them all around, a reporter was assured yesterday by Mr. W. C. Stronach, were as good as at any time since 1865.—*Raleigh (N. C.) News and Observer*.

BRIGHT CROP PROSPECTS IN VIRGINIA.

PETERSBURG, VA., June 16.—Information has been received through reliable private sources from several southern counties of Virginia to the effect that the crop prospects are better than they have been for years. Cotton is 10 or 15 days in advance of what it was last year at this time. The oat crop is good. Corn looks green and vigorous on all lands not too wet for cultivation. A few more days of good weather will insure the destruction of the grass which has grown rapidly during the recent seasonable weather. Wheat on the red lands is inferior, but on the light lands is very good, and if not injured by rust the crop will be an average one. There is a better stand of tobacco and a larger crop has been planted than for many years. Altogether the crop outlook is very encouraging.

THE shout from Hornhill, Limestone county, is encouraging. The writer says "it will require the use of every machine in the country and every hand possible to save the heavy oat crop, and this is the sweet refrain that comes from nearly every corner of Texas.—*Dallas (Texas) Herald*.

We have had reliable crop reports from almost all the neighboring counties, and from every portion of Dougherty. All these are of the most flattering description. "No such prospects for years" is the general opinion expressed.—*Albany (Ga.) Medium*.

Our Durham correspondent says: "The very wet season of May has had its way for nine days. Frequent and daily rains have prevailed. Farmers are planting at a lively rate. Plants are plentiful and of fine size.—*Durham (N. C.) correspondent Winston Sentinel*.

Prospects for corn, tobacco, garden vegetables and fruit, are very fine.—*Hillsboro (N. C.) Observer*.

Wheat continues to look well. It is generally low but well headed, and in most sections of the county nearly an average crop will be harvested. The oat crop is the poorest for years. It is doubtful if the seed sown will be harvested. Good stands of corn and cotton are reported, and they are growing rapidly. The chinch bug is reported in some sections.—*Monroe (N. C.) Enquirer*.

Fine rains have fallen since our last issue. Thousands and thousands of tobacco plants have been set, and it has been the best season for ordering tobacco since last fall.—*Alamance (N. C.) Gleamer*.

The cotton and corn crops of this vicinity begin to present most flattering indications of a success, and the agricultural outlook generally is vastly more encouraging than a few weeks since.—*Lincolnton (N. C.) News*.

The *Selma (Ala.) Times*, reviewing the crop report of the State Commissioner of Agriculture, says: "Altogether, the outlook at present promises a rich harvest next fall."

Farmers are having a lively time keeping their crops free from grass; but most of them have succeeded. If they continue their rigid economy until fall they will have more cash than any year in the history of the county. All would be out of debt and independent. One of the largest fruit crops ever grown in the county is assured for the present year.—*Troy (Ala.) Enquirer*.

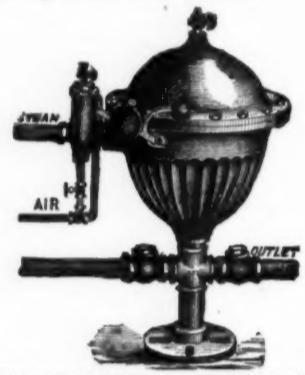
The crop prospects are growing brighter every day.—*Milledgeville (Ga.) Union and Recorder*.

OUR very enterprising contemporary, the *Griffin News*, of Griffin, Ga., has favored us with a small pamphlet setting forth the advantages of that city and the surrounding country, which it calls the "Garden Spot of Georgia," for Northern and Western settlers. The attractions of that section are very great, and as it is one of the most prosperous parts of Georgia, it deserves the examination of all who desire to seek a pleasant home in the South.

The Curtis Patent Return Steam Trap.

In the accompanying illustration is shown the Curtis Patent Return Steam Trap. Many of our readers are familiar with ordinary steam traps, but the essential difference between a return trap and a discharge trap is, that the latter takes the water of condensation from the coils or other condensing surface, and simply discharges it into a drain or open tank, to be wasted entirely or cooled down sufficiently to be returned to the boiler by a pump or injector; while the return trap takes the water from the condensing surface, whether that surface be above or below the boiler level, and automatically returns it into the boiler at the temperature due to the pressure at which the steam is condensed, thus saving a large percentage of the latent heat taken up by the water in forming steam.

Again it delivers the water into the boiler against any pressure that may be in the boiler, regardless of the fluctuations of the boiler pressure, returning all the condensation with equal certainty and rapidity at either high or low boiler pressure.



THE CURTIS PATENT RETURN STEAM TRAP.

When there is a street pressure on the water supply, this return trap can be used to supply all the water needed in the boiler, thus doing away with pumps and injectors, and putting the water into the boiler at a far higher temperature than is usually possible with either of these boiler feeders.

When a heater is used, the water can be fed into the trap through it.

One especial advantage of this return trap must not be overlooked, which is that as there is no other outlet from the condensing surface, there can be no waste of steam or water. It must all go back to the boiler; and, further, as this return is pure distilled water, it is in the most perfect condition to benefit the boiler. This feature is of very great advantage in the West, where much of the water is impregnated with lime or sediment, and parties are expending large sums for repeating heaters, scale preventing and scale eradicating compounds. This trap returns pure distilled water, which not only makes no scale, but has a tendency to remove scale already formed. The difference between distilled water and the ordinary lime water represents one-quarter of the full expenditure in producing steam.

This trap will return the water from heating pipes, where low pressure, produced by a pressure regulator, or exhaust steam is used wholly or in part; the only requirement being that there shall be enough pressure to lift the return water into the trap.

These traps are useful, and used in cotton, woolen and paper mills, etc.; on coils in dry rooms, cylinder dryers, slingers, jacket kettles, and steam-heating coils of every description—and wherever steam is condensed under pressure, whether above or below the water level of the boilers. These traps are manufactured by the Curtis Regulator Company, 59 Beverly street, Boston, Mass.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

North Carolina's Pine.

Mr. Wm. E. Ashley, manager of the North Carolina Car Works, in a letter to the Watauga Club, of Raleigh, says: Your committee on the woods of North Carolina having already, through Dr. Dabney, reported on the very numerous articles of every day use that are now imported into this State, the raw material for which is wasting on almost every hillside, desired that we turn our attention to the manufacturing question so plainly brought before us.

As it is a very large one, our forest wealth being equal to or greater than that of any State, and probably exceeding in value any other natural resource, we have in this paper selected only one—the Pine—including all commercial varieties without regard to their botanical differences.

They are to be found in large quantities in fifteen counties; estimated to aggregate 5,229,000,000 feet. A vastly great and to even an expert mind a totally unmeasurable quantity,—nearly one-third of which is directly within reach of this market.

How can we best utilize this immense forest wealth, and in what condition will it be the most valuable to us? We will mention a few of the simpler methods of manufacture, and the increased value at each stage.

First, the average price per acre of pine timber land is \$2.50. The average product of one acre is 4,000 feet board measure of merchantable lumber, worth at railroad station or side-track the average price of \$7.50 per 1,000 feet, or \$30.00 for 4,000 feet. Here we have worked up the raw material of one acre worth at first \$2.50, and by simply running a saw through it we have multiplied its value more than ten times. But this multiplication is not all profit. It requires an investment in lands, boiler, engine, saw mill, wagons, horses, mules, harness, tools, etc., varying according to the quantity of land purchased, from \$5.00 to \$25.00.

The average saw mill will employ fifteen men at a monthly pay-roll of \$250. Feed of teams, interest on investment and wear and tear will in most cases equal the pay-roll. The usual monthly product of such mill will be about 100,000 feet, and by hard work and close, careful management the proprietor may secure a comfortable income from the earnings of one mill.

We will now follow this product of one acre to the planing mill, here if we will dry and plane it for flooring, ceiling or weatherboarding, we have increased the value to \$50. Or we will make it all into moulding, and we have a product worth \$120, four times its first market value. Or again we will make doors, sash and blinds, out of this 4,000 feet we have taken from the one acre and we have by the aid of machinery and labor articles worth at wholesale prices \$265, more than 100 times greater than when we first met our one acre of pine land. In order to accomplish the above striking results it is necessary to have buildings or shops to contain engine, boilers, pulleys, shafting, planers, moulders, lathes, mortising, tenoning, boring, shaping, and many other machines, the prices of which vary all the way from \$20 to \$200 each, running the cost of a well equipped plant up to \$30,000.

Such a property, well officered and manned, to manufacture as above would require about 35 men. Pay-rolls and salaries average \$1,250 per month. Interest, insurance, taxes, repairs, and wear and tear, about \$400 per month more. Cash value average monthly product \$4,000.

We have now brought this acre of pine timber land through several stages of shape and value, employing more than 50 men and several thousands of capital, all in a domestic manufacture—namely, house-building material. If this pine on 300 acres will supply with raw material the saw mill and factory above described for one year, the 1,500,-

000 acres in the State will certainly supply several hundred such enterprises for a long time to come.

But to proceed, our yellow pine has many friends all over the country, in the shipyards, car shops, banks, private residences and even churches. Mr. Hale notes a yellow mast stock that sold in New York for \$600. A recent number of the "National Car Builder" contains the following: "Yellow pine is one of strongest woods known, ranking along-side of ashe and white oak for car or coach building and finishing. Select edge grain yellow pine flooring commands a very high price in any Northern market. The lumber is also very fashionable just now for reeded wainscoting in banks, halls and dining-rooms of private residence; some very fine office furniture is also made from yellow pine. I remember noticing an entire set in Boston last fall, and we might continue the list almost without limit. But Mr. President, with the final remark that tar, pitch and turpentine are also made from pine, I shall bring this paper to a close.

Growth of Dallas, Texas.

The *Herald*, of Dallas, Texas, in reviewing the remarkable growth of that town during the last two years, sums up the manufacturing interests by saying:

"Among the enterprises on hand are three flouring mills—combined capacity, 1,000 barrels per day; and among the many other smaller manufacturing establishments there are two wire goods factories, two vinegar factories, one trunk manufactory, four foundries for making and repairing engines, boilers, castings, etc.; one spring-bed manufactory, four planing mills, six shirt manufactories, four soda, sarsaparilla and gingerale manufactories, one show-case factory, one horse-collar factory, four harness and saddle manufactories—working 200 men, one oil and paint works, one paper-box manufactory, one paper bag manufactory, three monument and tombstone works, three matress manufactories, three lime manufactories, three ice factories, one oil-mill, works 250 men; four sheet-iron, brass and cornice manufactories, three candy manufactories, one bustle factory, five broom factories, seven brick manufactories employing nearly 1,000 men, one bluing factory, three coffee and spice mills, one oat meal mill, three corn mills, one hominy and grits mill, one baking powder manufactory. All of the above named establishments seem to be doing a thriving business. In enumerating some of the many institutions of Dallas it would not be amiss to show that there are 26 churches, 19 for white people and 7 for colored; 25 schools, 20 for white pupils and 5 for colored. There is in operation 13 miles of street railroads; 6 railroad depots in as many different parts of the city.

There are 11 job printing establishments and 19 newspapers, 4 daily, 14 weekly and 1 monthly.

E. Van Winkle & Co. have commenced the erection of a large manufacturing establishment for the manufacturing of cotton gins, presses, oil mills and machinery, with a capital of \$150,000, and will work 75 hands.

Mr. Charles Munger, with a capital of \$50,000, has commenced the manufactory of the Munger cotton gin, working 30 hands.

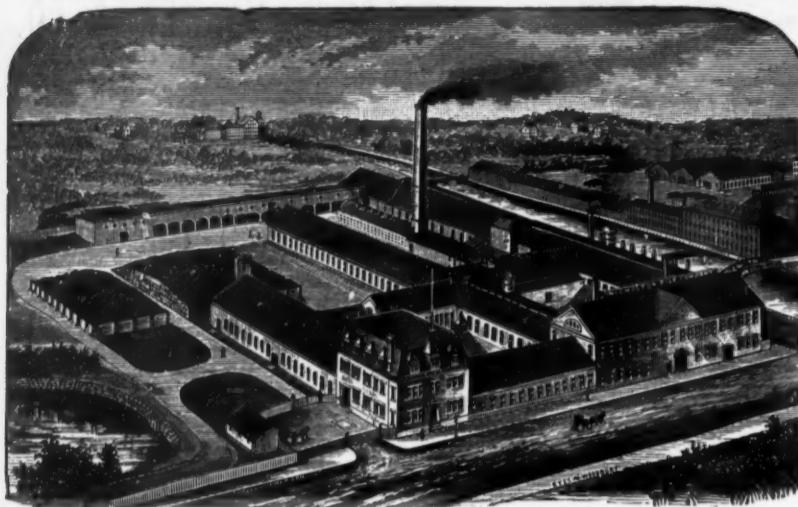
The Texas Cotton Press company manufacture cotton presses and other cotton machinery, working 40 hands.

The Dallas Chair and Furniture factory is putting in its machinery, and will work 37 men.

John B. Rugor & Son, cracker factory, capacity of 200 barrels per day.

Wagenhauser Brewing Company, capacity of 800 kegs every 24 hours.

THE new Repair Shops of the Mexican International Railway, at Eagle Pass, Texas, are to be driven by a Westinghouse Engine of 80 horse-power.



Nicholson File Co.

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JARVIS PATENT FURNACE FOR SETTING STEAM BOILERS.



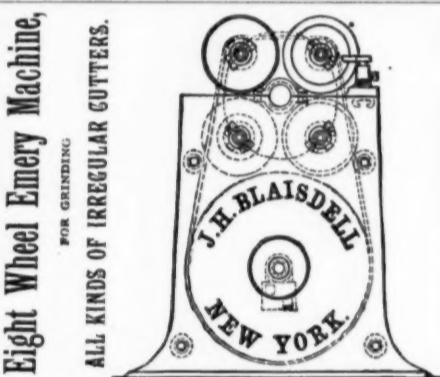
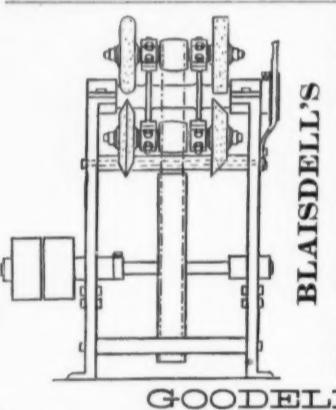
Economy of Fuel, with increased capacity of Steam Power. Like the **Siemens Process of Making Steel**, it utilizes the waste gases with hot air on top of the fire. Will burn all kinds of waste fuel without a blast, including Slack Coal, Sawdust, Logwood Chips, &c. Send for Circulars.

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Anniston Mfg. Co., Anniston, Ala.
J. P. King Mfg. Co., Augusta, Ga.
Rose Mining Co., Charleston, S. C.
Maryland Pavement Co., Baltimore, Md.
Brush Electric Light Co., Baltimore, Md.
Etrick, Mataca and Battersea Mfg. Co's.,
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Tanner & Delaney Engine Co., Richmond, Va.
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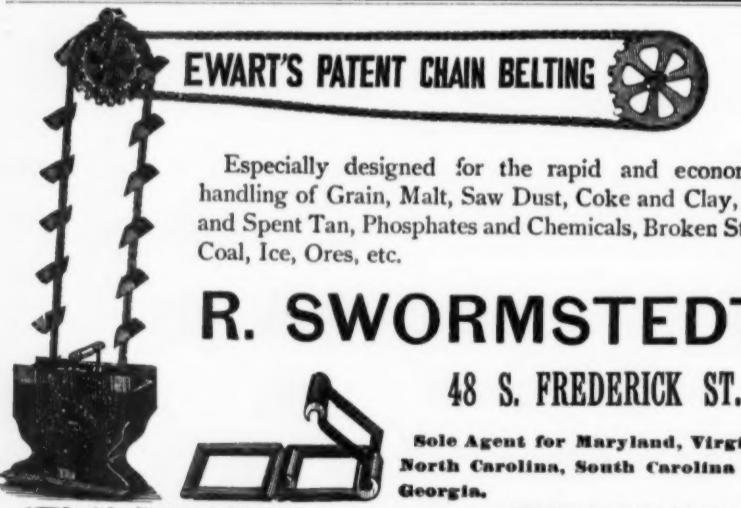
Graniteville Mfg. Co., Graniteville, S. C.,
Charleston Bagging Co., Charleston, S. C.
F. H. Mayo & Bros., Richmond, Va.
Phosphate Mining Co., Beaufort, S. C.
Brush Swan Electric Light Co., Norfolk, Va.
Columbus Ice & Refrigerator Co., Columbus, Ga.
Lenoir Manufacturing Co., Lenoir, East Tennessee.
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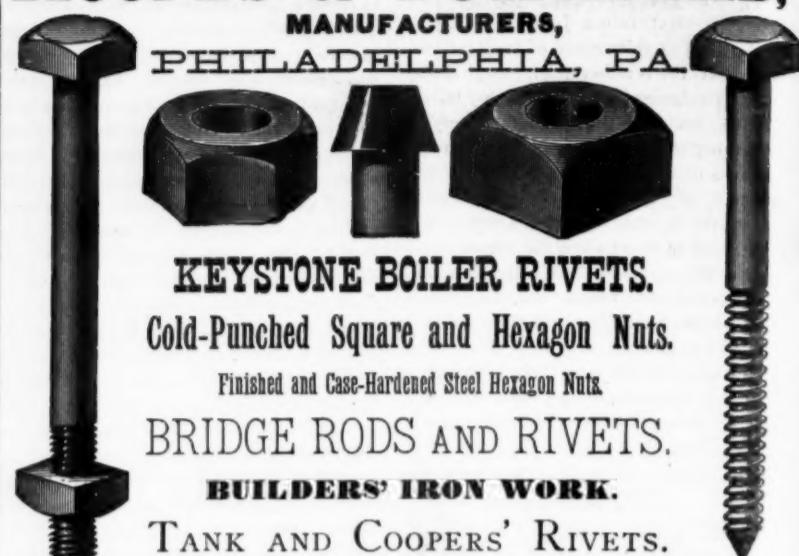
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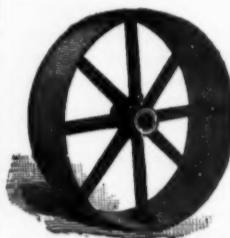
Cold-Punched Square and Hexagon Nuts.

Finished and Case-Hardened Steel Hexagon Nuts.

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THE LIGHTEST, STRONGEST,
BEST BALANCED, AND CHEAPEST
IN THE WORLD.

Whole pulleys from 9 inches to 120 inches diameter. Split pulleys from 12 inches to 120 inches diameter. All widths of face up to 36 inches, crowning or straight, with single, double or triple sets of arms. Also tight and loose pulleys. Absolute Satisfaction Guaranteed. SHAFTING, HANGERS, COUPLINGS, &c.

MEDART PATENT PULLEY CO.,
1206 TO 1214 N. MAIN STREET, ST. LOUIS, MO.

STORES: 99 & 101 W. Second St., Cincinnati. 24 & 26 S. Canal St., Chicago.

MACHINE-MOLDED Cast Pulley Castings

Machine-molded Pulleys save from 10 to 20 per cent. in turning, balancing, and also in weight; and, being perfectly proportioned, are far stronger than hand-made PULLEYS. We have a capacity of 120 pulley castings a day, ranging from 6 inch diameter, 1½ inch face, to 36 inch diameter, 24 inch face. We also keep a large assortment of Journal-box Castings, Face Couplings, Set Collars, Boiler Fronts, etc., on hand. Send for Price-Lists.

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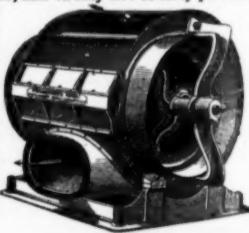


THE MACKENZIE PATENT CUPOLA AND BLOWER

Send for Circular to SMITH & SAYRE MFG. CO., Proprietors, 245 Broadway, N. Y.

This Cupola has made a great revolution in melting Iron. It differs from all others in having a CONTINUOUS TUYERE, or in other words, the blast enters the fuel at all points. Above one ton capacity per hour, they are made oval in form. This brings the blast to the center of the furnace with the least resistance and smallest possible amount of power, and in combination with the continuous Tuyere causes complete diffusion of the air throughout the furnace, and uniform temperature, melting ten or fifteen tons an hour with the pressure of blast required to melt two or three tons in an ordinary Cupola. It also enables us to save very largely in time and fuel, the experience of our customers showing a gain of twenty-five to fifty per cent. in time, and twenty-five to forty per cent. fuel over the ordinary Cupola, and a BETTER QUALITY OF CASTING, especially in light work. This is due to the thorough diffusion of the air and more perfect combustion, extracting less carbon from the iron, making a softer and tougher casting.

We manufacture these Cupolas of any desired capacity, numbered from 1 to 20, inclusive, the numbers indicating the melting capacities in tons per hour—No. 1, one ton; No. 2, two tons; No. 3, three tons per hour, and so on up to 15, or so tons. We have improved the construction of these Cupolas in every way, have increased their strength and durability, and sought to make them as convenient for working and repairs as our own and the experience of our customers could suggest.



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THE ONLY PEACH PARER, THE BEST APPLE PARER,
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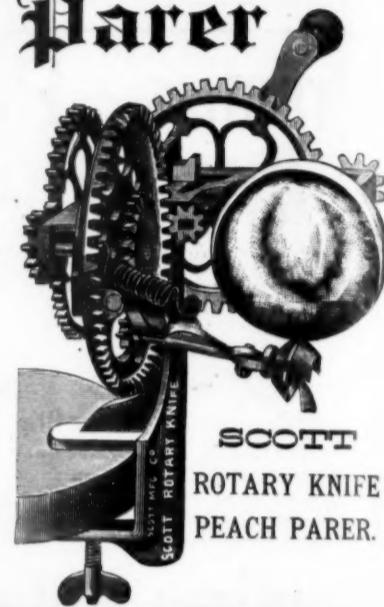
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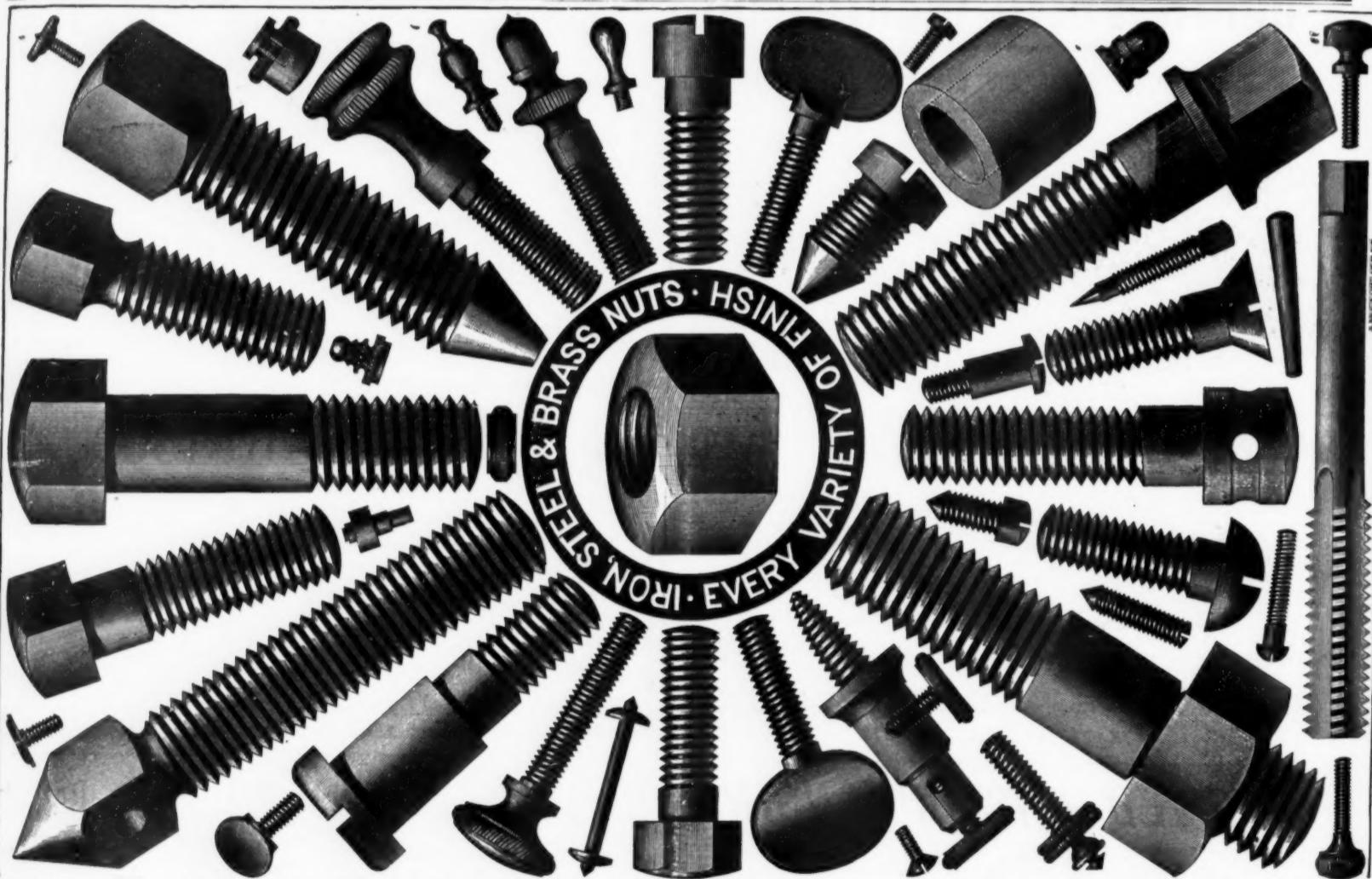
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Ives' "Jennings" Bits.	dis 40&10&10%
Expansive Bits, Clark's small, \$1.25; large, 26. dis 25%	
Expansive Bits, Ives.	dis 20&10; 33%
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Hollow Augers, Douglass.	dis 25%
Hol. Aug., Bonney's Adjust.	dis 45; 25&10%
Hol. Aug., Stearn's Adjust.	dis 45; 25&10%
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Double Cut Gimlet Bits, Douglass.	dis 33%
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Morse's Bit Stock Drill.	dis 25%
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Sewing Brass Ferrule.	23.50 per gross—dis 40&10%
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Second quality Axes.	50 cts. less than above

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Gong, Abbe's.	dis 20&10%
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Leon Reading.	dis 25&10&10%
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Cow, Western, Sargent's List.	dis 55&10&10%
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Cow, Moore's or Dodge's, Genuine Ky., new list: Nos. 0 1 1½ 2 3 5 5 6 Hog	dis. 60 & \$1.20 to \$2.50 \$7.50 \$2.50 \$5
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BELLows.

Blacksmith's Common.	dis 50¢
Moulder's.	dis 25¢
Hand Bellows.	dis 25¢

BLIND FASTENERS.

Francis.	dis 20¢
Mackrell's.	100 doz pairs \$1.00, dis 10%
Van Sand's Screw Pattern.	25¢ per gross, net
Van Sand's Old Pattern.	1½, 2½, 3½, 5, 8, 10¢ per gross, net
Merriman's.	new list, net
Zimmerman's, 9 in.	dis 50¢
Zimmerman's, without screws.	dis 50¢ less

BLIND STAPLES.

Barbed, ½ in. and larger.	100 b. 12¢ net
Barbed, ½ in.	100 b. 13¢ net

BLOCKS.

Penfield Block Co., Rope and Iron Strap'd.	dis 40%
BOLTS.	

Cast Iron Barrel Shutter, &c.	dis 55&10%
Cast Iron Chain (Sargent's list).	dis 60&10%
Wrought Barrel.	dis 55&10%

BOWLS.

Wright, Square.	dis 55&10%
Wright, all Iron, Stanley's list.	dis 50&10%
Wright, Brass Knob, Stanley's list.	dis 50&10%
Wright, Shutter, Sargent's list.	dis 55&10%
Wright, Sunk Flush, Sargent's.	dis 65&10&10%
Wright, Sunk Flush, Stanley's.	dis 40&10%
Wright, B. K. Flush, Stanley's.	dis 50&10%
Carriage and Tire, Common, new list.	dis 50¢
Carriage and Tire, Philadelphia Pattern.	dis 50¢
Carriage Bolts, Clarke's.	dis 80¢
Norway.	dis 75¢
R. B. & W. Carriage (old list).	dis 65¢
Tire, American Screw Co's, Phila.	dis 80¢
Tire, "Bay State."	dis 70¢ new list
Eagle Philadelphia Tire Bolt.	dis 80¢
Stove.	dis 60¢
Plow.	dis 50&10%
Machine.	dis 70¢
Bolt Ends and Lag Screws.	dis 70¢

BOXES.

15¢ 10¢ 10¢ net.	
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BRACKETS.

Q. S. Backus.	dis 50¢
Barber's.	dis 40¢
Spooffard's Patent.	dis 50¢
Ive's Patent Braces.	dis 50¢
Common Ball (American).	dis 55¢
Amidon's.	dis 50¢

BOILING MACHINES—WITHOUT AUGERS.	
Sweet & Clark upright, 3.60 angular.	4.40 net
Lawrence.	3.00
Hubbard.	3.00
Phillips, with Augers.	7.00

BRACKETS.

Sheff, plain.	dis 50&10%
Sheff, fancy.	dis 55&10%

BALTIMORE MANUFACTURERS' RECORD.

BRIGHT WIRE GOODS.	
New list.	dis 70&10&10%
UNION NUT CO.	dis 55¢
Sargent's.	dis 60¢
Humason, Beckley & Co's.	dis 60¢
BUTTS.	
Wrought Brass.	dis 75¢
Cast Brass, Fast Joint.	dis 50¢
Cast Brass, Loose Joint.	dis 50¢
Fast Joint, Narrow.	dis 50¢
Fast Joint, Broad.	dis 50¢
Loose Joint.	dis 50¢
Loose Joint, Japanned.	dis 50¢
Loose Joint, Jap., with Acorus.	dis 50¢
Parliament Butts.	dis 50¢
Mayer's Hinges.	dis 50¢
Loose Pin, no Acorn.	dis 50¢
Loose Pin, Acorn.	dis 50¢
Loose Pin, Acorns, Japanned.	dis 50¢
Loose Pin, Acorn, Jap'd, Plated.	dis 50¢
Tips.	dis 50¢
Wrought Iron.	dis 50¢
Fast Joint, Narrow.	dis 50¢
Fast Joint, Lt. Narrow.	dis 50¢
Fast Joint, Broad.	dis 50¢
Loose Joint, Broad.	dis 50¢
Table Butts, Back Flaps, &c.	dis 50¢
Inside Blind, Regular.	dis 50¢
Inside Blind, Light.	dis 50¢
Loose Pin, Wt.	dis 50¢
Loose Pin, Light.	dis 50¢
Spring Hinges—	
Geer's Spring and Blank Butts.	dis 25¢
Clarke Hardware Co's.	dis 25¢
American Spring Hinge Co's.	dis 25¢
Gen. Spring Hinges.	dis 25¢
Blind Butts	

BALTIMORE MANUFACTURERS' RECORD.

LAWN MOWERS.

Acme Buckeye, Easy and Excelsior, new list, dis 40 \$
Linen Fish.....dis 25 & 10 \$
Wire Clothes, Galvanized, 100 feet, \$ per doz \$3.00
LOCKS AND LATCHES.

Cabinet, Eagle.....Changes made in list price
Cabinet, Gaylord.....of some numbers Jan. 1,
Cabinet, Bridgeport.....1881, dis 25 & 2 \$
Cabinet, P. & F. Corbin.....dis 40 \$
Trunk, new list, Jan. 1, 1881.....dis 15 & 2 \$
Yale Lock Co., Flat Key.....dis 40 \$
Plate.....dis 33 & 2 \$
DOOR LOCKS, ETC.

Bradford.....
Norwalk.....List prices as revised
Norwich.....Dec. 10th, 66 & 3/4 \$
P. & F. Corbin.....
Russell & Erwin.....
Mallory, Wheeler & Co.....
Padlocks—Russell & Erwin.....
Mallory, Wheeler & Co.....
Norwich Lock Manf. Co.....and 5% for cash.

Wm. Wilcox & Co.....
Wm. Wilcox & Co's Plate Locks.....dis 33 & 1/2 \$
Yale Lock Manf. Co's "Standard".....dis 40 \$
Romer's.....dis 25 & 40 \$
Conestoga.....dis 75 \$
Scandinavian, "Norwich".....dis 50 & 10 \$
MALLETS.

Penfield Block Co., Apple, Hickory and
Lignumvite.....dis 30 \$

MEAT CUTTERS.

Dixon's (P. S. & W.) Nos. 1 2 3 4.....
\$ per doz \$14 \$17 \$19 \$30 & 35 \$

Perry's, Nos. 1 2 3 4 4 ft. 5 gr'd
Each.....\$3. 5 11 13 30 dis

Woodruff's (P. S. & W.) Nos. 100 150
\$ per doz \$15 18-35 \$

Hales'.....Nos. 11 12 13
\$ per doz \$27 35 45-dis 50 & 10 & 2 \$

Kieser's No. 55.....\$40 \$ per doz dis 40 \$

Kieser's Gem.....\$25 \$ per doz dis 40 \$

Kieser's No. 82.....\$40 \$ per doz dis 40 \$

Kieser's Monarch.....\$45 \$ per doz dis 40 \$

Beef Shaver, (Enterprise Manf. Co.).....dis 25 \$

MOLASSES GATES.

Stebbins Patterns.....dis 70 & 10 \$

Stebbins Genuine.....dis 67 & 10 \$

Stebbins Tinned Ends.....dis 40 & 10 \$

Chase's Hard Metal.....dis 50 & 10 \$

Self-Measuring, (Enterprise).....dis 20 & 10 \$

Lincoln's Pattern.....dis 60 & 10 \$

Weed's.....dis 15 \$

Boss Nos. 1 2 3 10...\$ per doz

1/2 & 1/4, Bronze Finish.....dis 50 & 10 & 10 \$

NUTS AND WASHERS.

Square Nuts.....8 c off list.

Hexagon Nuts.....8 1/2 c off list.

Washers.....7 1/2 c off list.

OILERS.

Zinc and Tin.....dis 60 & 10 \$

Brass and Copper.....dis 50 & 10 \$

Malleable (Hammer's).....\$ per doz \$5, dis 10 & 10 \$

PINKING IRONS.

Per dozen.....75 cts. net

PLAIDING MACHINES.

Astor Plaizing Machine.....each \$15, dis 20 & 10 \$

Crown Plaizing Machines.....dis 25 & 6 in., 10 in. \$8 each.

PLANES AND PLANE IRONS.

Bench, First Quality.....dis 20 & 10 \$

Bench, Second Quality.....dis 25 & 10 \$

Molding.....dis 15 & 10 \$

Bailey's (Stanley R. & L. Co.) New list, Jan. 1879

The Stanley (S. R. & L. Co.) new list, January 1879

dis 20 & 10 \$

Bailey's.....dis 20 & 10 \$

Plane Irons, Butcher's.....\$5.50 to 7

Plane Irons, Auburn Tool Co.....dis 20 & 10 \$

Plane Iron, Ohio Tool Co.....dis 20 & 10 \$

Plane Irons, Sandusky Tool Co.....dis 20 & 10 \$

FLIERS AND NIPPERS.

Button's Patent.....dis 33 & 1/2 \$

Hall's Pat. Compound Lever Cutting Nippers,

No. 2, 5 in. \$13.50; No. 4, 7 in. \$21 \$ per doz., dis 25 & 10 \$

Gas Pliers.....dis 50 & 10 \$

PLUMBS AND LEVELS.

Disston's.....dis 40 \$

Stanley R. & L. Co.'s Pat. Adjustable.....dis 65 & 10 \$

Stanley R. & L. Co.'s Non-Adjustable.....dis 65 & 10 \$

Chapin's Patent Adjustable.....dis 65 & 10 \$

Chapin's Non-adjustable.....dis 65 & 10 \$

Standard Rule Co.'s New Adjustable.....dis 65 & 10 \$

Standard Rule Co.'s Non-Adjustable.....dis 65 & 10 \$

Pocket Levels.....dis 65 & 10 \$

RAIL.

Sliding Door, Wrought Brass.....\$ per lb. 42c. dis 30 & 10 \$

Sliding Door, Bronzed Writ. Iron.....\$ per ft. 12c. dis 35 & 10 \$

Sliding Door, Iron, Painted.....\$ per ft. 4c. dis 10 & 10 \$

Barn Door....1 in. \$2.60 3.60 5.60 dis 10 & 10 \$

Per 100 feet....\$2.60 3.60 5.60 dis 10 & 10 \$

B. D. for N. E. Hangers—Small. Med. Large.

Per 100 feet....\$2.10 2.70 3.00 net.

RIVETS.

Iron and Tinned, new list, Dec. 10, 1881.....dis 40 & 10 \$

In bulk, new list, Dec. 10, 1881.....dis 40 & 10 \$

Copper Rivets and Burrs.....dis 50 & 10 \$

No. 7 8 9 10 12 13 14 15 16

No. 16 40c. 50c. 52c. 54c. 56c. 58c. 60c. 62c. 70c.

RIVET SETS.....dis 40 & 10 \$

RODS.

Stair, Brass.....dis 25 & 10 \$

Stair, Black Walnut.....60c. \$ per doz.—net

RULES.

Boxwood. Ivory.

Chapin's.....{ dis 75 & 10 } { dis 40 & 10 }

Standard.....{ and 10 } { dis 40 & 10 }

Stanley.....dis 70 & 10 \$. Ivory.....dis 50 & 10 \$

Stevens & Co. Miscellaneous.....dis 50 & 10 \$

SAD IRONS.

Self-Heating, Charcoal.....\$ per doz 9.00 net

Mrs. Pott's Irons.....dis 35 & 10 \$

Enterprise Star Irons, new list, July 20, '82.....dis 35 & 10 \$

Common Sad Irons.....\$ per doz 15.00, dis 15 & 10 \$

SAND PAPER.

Baeder & Adamson's Flint, 20 x 1/2 \$, \$4.50 \$ per r.m.

Baeder & Adamson's Flint, 2, 2 1/2 x 3, 5.00 \$ per r.m.

Baeder & Adamson's Flint, Assort'd 4.75 \$ per r.m.

Baeder & Adamson's Star.....3.75 \$ per r.m.

Baeder & Adamson's Emery \$ per r.m. \$6.50 @ 11.50

J. Bartle's Sand, Flint and Emery Paper.....dis 30 & 5 \$

SASH CORD.

Common.....\$ per lb. 14c. net

Patent.....\$ per lb. 17c @ 18c. net

Silver Braided Lake Hemp.....\$ per lb. 50c. dis 10 & 10 \$

Silver Braid, Lake White Cotton, \$ per lb. 50c. dis 10 & 10 \$

Silver Braided Lake Drab Cotton, \$ per lb. 50c. dis 10 & 10 \$

Silver Lake Cable Laid, Bengal Unbleached

Hemp, 17 cts. dis 10 & 10 \$

Russian Hemp, 19 cts. dis 10 & 10 \$

Italian Hemp, 34 cts. dis 10 & 10 \$

SASH WEIGHTS.

Solid Eyes, in 500-lb. lots and over, \$ per lb. 1 1/2 c. net

SAUSAGE STUFFERS OR FILLERS.

Miles.....\$ per doz., No. 15; No. 6, \$11...dis 25 & 5 \$

Perry.....\$ per doz., No. 15; No. 6, \$11...dis 35 \$

ENTERPRISE MFG. CO.

Monarch.....dis 25 & 10 \$

SAWS.

Boynton's Lightning Cross Cuts, new list.....dis 40 \$

Boynton's Circular and Mill.....dis 40 \$

Boynton's Ice.....dis 25 \$

Disston's Circular.....dis 40 \$

Disston's Mill.....dis 40 \$

Disston's Cross Cut.....dis 40 \$

Disston's Hand, Panel, Rip, &c. dis 40 \$

Hubbard, Bakewell & Co. Circular Saws.....dis 40 & 5 \$

Hubbard, Bakewell & Co. Cross Cut.....30c. ft.

Hubbard, Bakewell & Co., One-Man's, X Cut.....dis 40 \$

Hubbard, Bakewell & Co., Mill Saws.....dis 40 & 5 \$

Peace Circular and Mill.....dis 40 \$

Peace Hand, Panel and Rip.....dis 25 \$

Peace Cross Cuts.....dis 35 \$

Peace Band Saws, all widths.....dis 10 & 10 \$

Webster Cross Cut, with handles.....dis 25 & 10 & 10 \$

Griffin's Hack Saws and Blades.....dis 30 \$

SAW FRAMES.

White.....\$ per doz \$1.05, dis 10 & 10 \$

Saw Rods.....\$ per list, dis 10 & 10 \$

SAW SETS.

Stillman's Genuine, \$ per doz \$2.00 and \$3.50 \$

Stillman's Imitation.....\$ per doz \$2.25, dis 30 & 10 \$

Common Lever.....\$ per doz \$2.00, dis 30 & 10 \$

Leach's.....\$ per doz \$3.00; No. 1, \$1.75; No. 2, \$1.50

Hammer, Hotchkiss.....\$ per doz \$1.50, dis 10 & 10 \$

Aiken's Genuine.....\$ per doz \$1.00, dis 50 & 10 \$

Aiken's Imitation.....\$ per doz \$1.00, dis 50 & 10 \$

Disston's.....\$ per doz \$1.00, dis 50 & 10 \$

Morrill's.....\$ per doz \$1.00, dis 50 & 10 \$

SCALES.

Hatch, Counter, No. 171.....\$ per doz \$42, dis 37 & 10 \$

Hatch, Tea, No. 161.....\$ per doz \$15.00, dis 37 & 10 \$

Union Platform, Keystone.....\$ per doz \$45, dis 45 & 10 \$

Chicago Scale Co.....\$ per doz \$45, dis 20 & 10 \$

Flatbanks.....\$ per doz \$45, dis 20 & 10 \$

Forsyth Scale Go.....\$ per doz \$45, dis 20 & 10 \$

Howe's.....\$ per doz \$20 & 10 \$

Chatillon's Grocers.....\$ per doz \$45, dis 20 & 10 \$

Chatillon's Eureka.....\$ per doz \$25, dis 20 & 10 \$

Family Universal.....\$ per doz \$25, dis 20 & 10 \$

Family Favorite.....\$ per doz \$25, dis 20 & 10 \$

Family Turnball's.....\$ per doz \$25, dis 20 & 10 \$

Scale Beams, List of Jan. 12, 1882.....\$ per doz \$25, dis 20 & 10 \$

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Adjust. Box Scraper (S. R. & L. Co.) \$6.50, dis 20 & 10 \$

Box, 1 Handle.....\$ per doz \$4, dis 10 & 10 \$

Box, 2 Handle.....\$ per doz

The Manufacturers' Record,

A WEEKLY PAPER.

Devoted to the Industrial Interests of the Southern States, having for its aim the Upbuilding of Southern Manufactures, and the Development of the Material Resources of the South.

BIGSBY & EDMONDS, Publishers, Baltimore.

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THE BALTIMORE MANUFACTURERS' RECORD has been doing a valuable work for the South in making a specialty of reporting Southern progress. No paper in the Union has more entitled itself to Southern gratitude than this enterprising and reliable journal. The RECORD has come to be a standard of authority in the matter of Southern advancement. Its labor has been remarkable in this work, and its care and accuracy phenomenal. As it has progressed in popular esteem, a few have endeavored to discredit its work. But all attempts have simply riveted it more strongly in public esteem. The recent publication in its issue of April 11th, of the development of the industrial interests of the South, has attracted general attention. The fine aggregate of \$20,591,000 of new capital invested in manufacturing is given. The figures, if possible, fall short of the mark, rather than overstate it. In getting up this valuable and accurate information, the editors of the RECORD underwent the enormous trouble of writing between 1,500 and 2,000 letters and postal cards. No journal has done more to bring Southern resources to Northern observation. Let our Southern press uphold the RECORD in its good labor. It has conferred an incalculable benefit upon our section.—*Commercial and Constitutional*, Augusta, Ga.

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Engine Lathe, each 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 28, 30, 32, 42 and 48 in. swing; length of bed to suit.

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12 in. and 24 in. Cylinder Horizontal Engine.

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All kinds Machinist's Tools and Supplies.

TOOL for Machinists. Amateurs. Jewellers. Model Makers. Blacksmiths. Carpenters. Conchmakers, etc. Send 20 cts. for NEW Metal Worker's Catalogue, 300 Pages. Wood Worker's Catalogue free.

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TAP-CUT-OFF TOOLS
DRILL SAUCERS

A COMMITTEE from Roanoke, Va., consisting of Dr. J. D. Kirk and E. H. Stewart, are in the city this week, examining the plant of the Standard Tool Works. They represent citizens of Roanoke, who subscribed for \$15,000 of stock in a proposed capital of \$40,000 to secure the removal of the tool works to their city. If arrangements for removal are agreed to, as seems very likely now, the plant will be entered in a joint stock company at a value of \$25,000. The great drawback here to the manufacture of railroad construction and mining tools is said by the Standard owners to be high prices for fuel. When in operating their works here they paid from 17 to 18 cents per bushel for coke, whereas in Virginia they are assured they can obtain coke as good as Connellsville for 6, and perhaps 5, cents per bushel. Their coal there would also be much cheaper and of decidedly better quality. In addition to these advantages they would be able to secure cheaper labor, and very favorable freight rates west. The committee from Roanoke are empowered to close with the company for removal or break off all negotiations, as they may see fit.—*St. Louis Age of Steel.*

At the works of the Southwark Foundry & Machine Company, Philadelphia, a representative of the American Machinist was recently informed that they had more work on orders in progress than for any time during the past seven years. On the floor, just completed, stood probably the largest pair of centrifugal pumps, with engines complete, ever built in this country. They are for the government dry docks at Mare Island. Each pump is capable of handling 40,000 gallons of water per minute. The total weight of machinery furnished on this order (which does not include boilers for the plant) is about 300,000 pounds. A number of both the Porter-Allen and "Southwark" engines are in process of construction. One of these, of the first mentioned type, is a 44x48 inch, for the Cambria Iron Company; one of the same size that went through the fire is being rebuilt for the Lackawanna Iron & Coal Company; a pair of large reversing engines are building for the Benwood Steel Works, of Wheeling, W. Va.; a large contract for purifiers for the Consumers' Gas Company, of Chicago, is being filled; also a large order for miscellaneous machinery for the Pottstown Iron Company. The Southwark Company are progressing rapidly with the re-equipment of their boiler shop—one of the largest in the country—with modern hydraulic and other machinery for doing boiler and heavy sheet metal work. The Southwark shops are amongst the best equipped in the country, not only for steam engine work, but for a general run of heavy work.—*American Machinist.*

MR. THOS. PRAY, JR. has issued a notice saying: "I have tendered my resignation as editor of Manufacturers' Gazette, to take effect June 30th, next, and from that date shall have no interest in, or connection with, the paper. Personal mail for me from and after that date, P. O. box 2510, New York, as at present. All matter for the Manufacturers' Gazette, please forward to P. O. box 2375, Boston, Mass., after June 25th."

GEO. C. KELLEY, dealer in hardware and furnace supplies, Birmingham, Ala., has sent us a copy of a finely lithographed view of that city, showing also in detail the leading manufacturing establishments. The view is a very handsome one, and represents Birmingham as an attractive city.

THE Beck, Bransford & Ekdahl Furniture Co. are increasing the capacity of their shops at Union City, Tenn. They are putting in a 125 horse-power Westinghouse Engine.

AMONG the large concerns of the country the following have purchased, and have in operation, the "Grand Automatic Brick Machine," manufactured by Jonathan Creager, 131 E. Front street, Cincinnati, Ohio:

Southern Ohio Brick & Tile Co., Cincinnati, Ohio. Standard Brick Works, Aurora, Ind. Lexington Brick Co., Lexington, Ky. Galesburg (Ill.) Press Brick & Tile Co. The Anchor Oil Co., of Helena, Ark., are getting these machines to make the bricks needed for the erection of their own gin houses.

Mr. Creager reports business with him as flourishing.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

Carriage and Wagon Material

AXLES.
Half Patent, solid collar.....dis 60 \$
Common.....rate 4
Concord.....8 1/2

BODY LOOP HNDS.
Plain, set.....100
Bolts, Eagle.....75

CLIPS.
Superior Axle.....dis 60 \$
Norway.....40 \$
Saddle.....doz set \$1 50

FINISHED CLIP KING BOLTS.
Nos. 1 & 2 3
Flanged, 1/2 doz.....\$3 00 3 50

DASHES.
Leather.....dis 10 \$

ENAMELED CLOTHS.
Muslin, 1/2 yard, 54".....18
Drill, " 50 in.....24
Duck, " 50 in.....29
Tan Back, " 54".....32

FELLOR PLATES.
Per lb.....8

FIFTH WHEELS.
Derby, 1/2 yard, 54".....8 75
" 50 in.....8 75
Cincinnati, 1/2 yard, 54".....6 00
" 50 in.....7 00

RUBBER DUCK AND DRILL—35 % off list.
SPRINGS.
Seat, 1/2 x 2 x 6, 1/2 pair.....90
Buggy, 1/2 in. and larger.....9
" 1/2 to 1 1/2 in.....9
Oil-tempered springs 2c. advance from above.

MALLEABLE CASTINGS.

Rate8

SHAFT AND POLE COUPLINGS.....50 \$

H. B. LEATHER.

No. 1 Top, 1/2 ft.....28

" 2 ".....23

" 1 Dash, ".....12

" 2 ".....26

Fancy Morocco, 1/2 ft.....10 @ 10 1/2

Bow, 1/2 ft.....20 @ 2 1/2

Collar, ".....24

Harness, 1/2 ft.....40

STEP PADS.

Per doz. pair.....\$2 25 @ 7 50

Spokes, No. 1, 1 to 1 1/2".....\$2 25 @ 7 50

" X, 1 to 1 1/2".....2 50 "

" XX, 1 to 1 1/2".....3 50 "

Wheels, Sarven Patent.....\$6 50 to 14 00

HICKORY FELLOES.

X.....1 1/2 1 1/2 1 1/2 1 1/2 1 1/2

1 25 1 25 1 35 1 60 2 00 1/2 set,

3 00 3 25 3 50 3 75 4 25 "

HICKORY SPOKES.

No. 1.....1 1/2 1 1/2 1 1/2 1 1/2 1 1/2

2 25 2 25 2 25 2 50 2 75 1/2 set,

3 00 3 25 3 50 3 75 4 25 "

HUBS.

No. 1.....5x7 6x8 7x9 8x10

90 100 135 180 1/2 set,

XX.....5 in. and smaller, 5 1/2

2 25 2 50 1/2 set,

FINISHED SHAFTS AND BARS.

X.....4 50

XX.....7 00 doz. pairs

Business Chances.

For the purpose of making the MANUFACTURERS' RECORD a still more valuable medium of communication between its readers North and South, we will publish, FREE OF CHARGE, short advertisements, not exceeding 40 words, from those in the South who have mills, factories, manufacturing sites or water-power for sale, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers superintendents, engineers, &c.

In corresponding with any of these advertisers please mention the Baltimore Manufacturers' Record.

FOR SALE.—A Stearns saw mill complete with latest improvements, in perfect order; capacity 80 M feet timber a day; 80 horse-power engine; 5 cylinder boiler, edger, saw sharpener, swage, &c.; or rented as it stands with buildings. Mill site and facilities are unsurpassed in the South. Address R. G. Chisolm, Charleston, S. C.

WANTED.—Situation as engineer to go South; have 28 years' experience; can give best of Cincinnati reference; am not afraid of work. Address J. W. Wamer, care M. Fuller, 376 Clifton avenue, Cincinnati, Ohio.

TOBACCO MANUFACTORY.—A party with some capital and a knowledge of the business of manufacturing tobacco can find at Morristown, Tennessee, parties to join him in erecting a tobacco factory. Tobacco growing is a new and increasing industry here, and there are no factories. Address W. H. Coffman, Morristown, Tenn.

A YOUNG MAN of ability, at present employed in one of the large cotton mills in the South, would like to take the management of a mill for a share of the profits. Best of reference as to ability and character. Address A. B., care MANUFACTURERS' RECORD.

WANTED.—Three to four thousand spindles. Spinning machinery to be put in as stock in weaving mill, now running on plaids. Brick mill; ample power; labor abundant; railroad within thirty feet; in a growing Southern city. For particulars address Plaid Mill, care BALTIMORE MANUFACTURERS' RECORD.

IRON.—A party who owns in East Tennessee, close to a trunk line of railroad, some of the most extensive iron ore properties in the United States, wants to organize a company with capital sufficient to manufacture them. Address W. N. Coffman, Morristown, Tenn.

FOR SALE CHEAP.—A fine mill-site in South Carolina. Location unsurpassed; stream never failing. The fall of water exceeds fifteen feet. 800 horse-power at lowest calculation. Good railway facilities; fuel near at hand and very cheap. In a fine cotton country. Address C. H. Wells, Greenville, S. C.

TALC.—A gentleman who has a fine deposit of talc on his farm in South Carolina, near railroad, would like to sell mineral rights in the land cheap. Gold is found in small quantities, and grindstones in abundance. Address Box 160, Greenville, S. C.

BARYTA.—We want to purchase baryta property and request information as to where it can be had; would be glad to have particulars of any property of this character that is for sale. Address S. & Co., care MANUFACTURERS' RECORD, Baltimore.

WANTED SITUATION.—By a man who has had 10 years' experience in spoke and handle business; foreman for 5 years past; a total abstinent and not afraid of work; refers to Southern Spoke & Handle Co., Henderson, Ky. Address A. H. Patton, Henderson, Ky.

A PARTY with capital desires information concerning a good location for a 10-ton ice factory or ice factory and oil mill combined; can build at once. Address Roberts, Room 4, 83 Cedar st., New York.

A DAILY NEWSPAPER in one of the most thriving towns in the South can be bought cheap for cash; now in prosperous condition; town growing rapidly; satisfactory reason for selling. For particulars address the MANUFACTURERS' RECORD, Baltimore.

THE OWNERS of a cotton mill in the South want an experienced man to take an interest in the mill, and take charge of same as manager. The owners and other stockholders have had no experience in running cotton factories, and besides, their time is so fully taken up with other business that they can not give personal attention to management of the finances or to the sale of the product. Machinery all new, and of the latest improved patterns. The mill is located in a flourishing and rapidly-growing city, with 6 railroads, and river navigable all the year. Coal is laid at the furnace door for \$1.70 per ton. It is desired that the manager shall have some interest in the mill, and no proposition will be entertained unless the party can put in at least \$10,000. Address A. C. M., care MANUFACTURERS' RECORD.

WANTED.—By a married man, a situation as overseer or superintendent of twin mill in the South; has had many years' experience in the manufacture of hard, soft and medium twines, warp, yarns, wick, &c. Can furnish best of reference as to ability, character, &c.; or would like to correspond with a party with view of introducing an improved spindle for the manufacture of the same. Address J. E. R., care of MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—A party with \$3,000 to join me in the development of 505 acres of land in Virginia, on which there are good indications of lead, cinnabar coal and silver; also coal oil. Lease for 99 years. Address A. S. Hanger, Lexington, Va.

A SCOTCHMAN of twenty years' experience as designer and manufacturer of the best classes of cotton and woolen fabrics, is open for engagement, or partnership with a party of means to manufacture these goods; thoroughly up in all details. Address W. M., care MANUFACTURERS' RECORD.

TURNER WITH LATHE WANTED.—Will furnish Hickory, Dogwood, Persimmon and Walnut waste, suitable for Handles, etc., with power, house, and garden plot for part of product. Address M. F. J., care MANUFACTURERS' RECORD.

WANTED—TIMBER.—A purchaser for the finest tract of timber land in Tennessee, near railroad—poplar, ash, hickory, red cedar, white oak and walnut. E. H. Lewis, Nashville, Tenn.

WANTED.—A man to take charge of a wood working factory. Address Box 196, Shreveport, La.

FOR SALE.—83 acres of land in half mile of the growing town of Warrior, Ala. About 40 acres cleared; 2 good springs; coal under 73 acres. Great bargain. For further particulars, call on or address S. C. Davidson, Warrior, Ala.

WANTED.—A partner to take half interest in a two press cotton-seed oil mill and cotton mill, or sell out. Can add other machinery. Good healthy locality. Address W. E. Yancey, Talledega, Ala.

WANTED—One set wool cards and jacks with bobbins and picker. H. G. Hall, Fayetteville, N. C.

HAVING the requisite experience I would like to take charge of a cotton mill. Address A. E., care MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—Situation as superintendent of cotton factory; now employed in the South; satisfactory reasons for leaving present place; good references. Address N. C., care MANUFACTURERS' RECORD.

WANTED.—A party to join me with some capital in a well established cotton gin factory in the South. The gins have no superior. Margins good. Water power used. Timber cheap and abundant. Address "Gin Factory," care of MANUFACTURERS' RECORD, Baltimore.

THE BAY LINE

—FOR—

FORTRESS MONROE, NORFOLK and the SOUTH.

The Bay Line comprises the New and Elegant Steamers

"VIRGINIA," "CAROLINA" and "FLORIDA."

All the Comforts and Luxuries of a First-Class Hotel are afforded the Traveler. Spacious and Elegant Saloons and Staterooms, furnished with an especial view to comfort. Unparalleled Cuisine, which is made a specialty with this Line. Elegant service and courteous attention. Steamers leave Baltimore daily except Sundays at 9 P. M.

At Old Point Comfort is located the SPLENDID HYGEIA HOTEL, a Delightful Resort at all Seasons of the Year. For Tickets and Information, apply at Company's office.

157 W. BALTIMORE ST., BALTIMORE,
Or on Board of Steamers.
D. J. HILL, Superintendent.
E. BROWN, General Ticket Agent.

Vulcan Works

BALTIMORE, MD.

All the Tools and Machinery of the above Establishment are offered at private sale. They comprise all the plant of a first-class establishment. Property for sale or lease. Send for catalogue.

H. R. HAZLEHURST.



Sherman Mfg. Co.

JACKSON, TENN.



PAINTS, OILS, &c.

PAINTS.

Black Lamp, coach painters.	12@20c
Black Lamp, ordinary.	12@40c
Black Ivory Drop, fair.	12@15c
Black Ivory Drop, best.	.30c
Black Paint, in oil.	12@10c
Blue Prussian, fair to best.	35@40c
Blue Prussian, fair to best, in oil.	35@40c
Blue Chinese, dry.	.70c
Blue Ultramarine.	15@35c
Brown, Spanish.	.10c
Brown, Van Dycke.	.10@15c
Green, chrome.	.10@15c
Green, chrome, in oil.	.10@15c
Green, Paris.	good, 12c; best, 25c
Green, Paris, in oil.	good, 12c; best, 25c
Iron Paint, bright red.	12@25c
Iron Paint, brown.	12@15c
Iron Paint, purple.	12@30c
Iron Paint, ground in oil, bright red.	12@50c
Iron Paint, ground in oil, red.	12@50c
Iron Paint, ground in oil, brown.	12@45c
Iron Paint, ground in oil, purple.	12@60c
Linseed Oil, raw.	.50c
Single Boiled.	.50c
Double.	.55c
Mineral Paints.	.9@4c
Orange Mineral.	.10c
Red Lead, American.	6@15c
Red Venetian, (English) dry.	51.50 to 51.75
Red Venetian, in oil.	ass'd cans, 9c; kegs, 6c
Red Indian, dry.	.8@12c
Rose Pink.	10@35c
Siena, American, raw.	.4c
Siena, Burnt.	.4c
Siena, raw.	.8@35c
Siena, burnt, in oil.	.8@25c
Umber, burnt.	.4@8c
Umber, burnt, in oil.	.8@35c
Umber, raw.	3@12@7c
Umber, raw, in oil.	.8@35c
Vermilion, Chinese.	.9@6c
Vermilion, English.	6@65c
Vermilion, American, common.	.15c
White Lead, American, pure dry.	6@65c
White Lead, American, pure in oil.	6@65c
White, Paris, English, prime.	in hrs. 1@2c
Yellow Ochre, French.	.8@15c
Yellow Ochre, French, in oil.	ass'd cans, 9c; kegs, 6c
Yellow Ochre, American.	in bbls. 1@12c
Yellow Chrome.	.20@18c
Yellow Chrome, in oil.	9@12@18c
Zinc White, American, No. 1, dry.	.7@9c
Zinc White, American, No. 1, in oil.	7@12c
Zinc White, French (Parish) dry.	10@34c
Zinc White, French in oil.	10@34c

OILS.

Bleached W. Spermaceti oil.	1@105
Nat.	1@100
B. W. Elephant oil.	75@10
Whale oil.	70@75
Pripe Lard oil.	58@60
Extra No. 1 Lard oil.	55@50
Lubricating oils.	13@25
Miners' oil.	45@55
W. Pressed Fish oil.	37@50
Neatsfoot oil.	65@80
Steam-refined Cylinder oil.	40@55
Best Filtered.	65@65
Signal oil.	55@65
Paraffine.	12@20

METALS.

TIN PLATES.

BLOCK TIN.

"Lamb and Flag," and "Straits."

Large Pigs.	21
Small Pigs.	22
Bars.	25

TINNERS' SOLDER.

No. 1 Refined.	13
Market Half-and-Half.	15
Strictly Half-and-Half.	16
ROOFING PLATES.	
IC, 14x30, Choice Charcoal Terne.	5 50
IX, 14x30, " " "	7 25
IC, 30x8, " " "	11 00
IX, 30x8, " " "	14 50
IC, 30x8, Extra fine quality, charcoal roofing, genuine "old style" redipped.	14 00
IX, 30x8, " " "	18 00

COKE PLATES.

IC, 10x14, bright, "B. V." grade.	4 50
IC, 14x20, " " "	6 75
IC, 14x30, " " "	7 75
IC, 10x30, " " "	8 75
SHIRT ZINC.	
In case of 600 lbs., 12 lb.	5 50
In smaller quantities, 12 lb.	6

TIN PLATES.

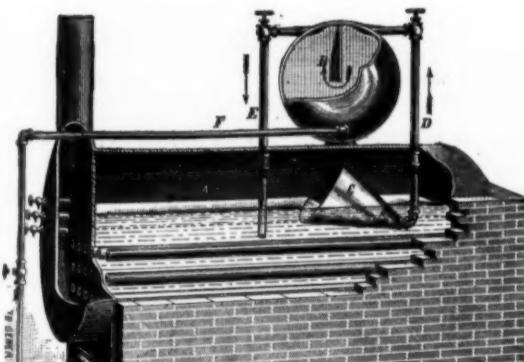
IC, 10x14, Charcoal.	5 50
IX, 10x14, " " "	7 50
IC, 12x12, " " "	5 70
IX, 12x12, " " "	7 70
IC, 14x20, " " "	5 50
IX, 14x20, " " "	7 50
IC, 14x30, " " "	9 50
IX, 14x30, " " "	11 50
IC, 14x30, " " "	13 50
IX, 14x30, " " "	15 50
DC, 100, Plate	5 50
DC, 100, " " "	7 50
DC, 100, " " "	9 55
DC, 100, " " "	9 55
DXXX, 100, " " "	9 55
BABBITT METAL.	
A 1.	15
No. 1 Ordinary.	9
Antimony.	18
Excelsior Babbitt Metal, No. 2.	10
" " " 4.	9
LEAD.	
Pig.	4
Bar, (15 oz. bars).	65c
Sheet.	75c
Pipe, full coils.	65c

THE HOTCHKISS MECHANICAL BOILER CLEANER

Removes from Steam Boilers, Lime, Oil, Magnesia, and all other impurities of Boiler Water, and prevents Scaling, Foaming and Burning; but the object of this advertisement is to inform you that some

IMPOSTORS.

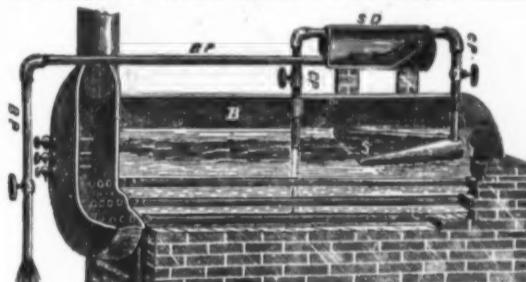
In the South and West are offering Boiler Cleaners for sale as shown in cut on right-hand side below which is an old style of my cleaner. The cut on left side shows my improved style.

"HOW TO KEEP
BOILERS
CLEAN."

If you will send me your name I will send you an 88 page book, free of charge, giving useful information to Steam Users and Engineers. **65,000** already sent out and more to follow. The title of book is "**HOW TO KEEP BOILERS CLEAN.**"

Compare this cut with one on left, and see if identical; the only difference being in shape of Skimmer and Drum.

S. D. Settling Drum. C. P. Circulating Pipe. B. P. Blow-off Pipe. S. Skimmer.



WATER

FOR SALE IN THE SOUTH BY
F. BROTHERHOOD & CO., Charleston.
A. W. KEY & CO., Birmingham.
JOHN ROURKE, Savannah.
TALBOT & SONS, Richmond.
J. & D. NOBLE, Anniston.
LEACHE & SPANDOUR, Norfolk.

JAS. I. HOTCHKISS,
86 John Street,
NEW YORK.

SCALE

PAINTS, OILS, &c.		SUNDRIES.		COPPER.		WIRE IN COILS.	
PAINTS.		Benzine.	12 gal, 8@10c	Tinned Sheathing, 14x48, 14, 16, 18 oz.	25	Old English gauge the Standard.	
Black Lamp, coach painters.	12@20c	Turpentine.	12 gal, 30c	" Planish'd, 14x48, 14, 16 oz.	35	Common	
Black Lamp, ordinary.	12@40c	Chalk.	12c	" Boilers, 7, 8, 9.	37	High	Gilding,
Black Ivory Drop, fair.	12@15c	Dryer patent Am'n.	ass'd cans, 8c; kegs, 7c	Cooper Pit Bottoms.	25	Brass.	Brass, and
Black Ivory Drop, best.	.30c	Frosting.	40c	Tinning Extra.	15	Copper.	Copper.
Black Paint, in oil.	12c	Glue, white.	12@20c	Brazier's Copper, 15 to 100 lb.	26		
Blue Prussian, fair to best.	35@40c	Glue, sheet.	12@15c	" 10 to 12 lb.	28		
Blue Prussian, fair to best, in oil.	35@40c	Glue, ordinary.	9@12		30		
Blue Ultramarine.	12@30c	Glaziers' Points, zinc.	.3c		32		
Brown, Spanish.	.10c	Gum, Copal.	.35c	Bolt	25		
Brown, Van Dycke.	.10@15c	Gum, Damar.	.35c	Tinning extra.	40		
Green, chrome.	.10@15c						
Green, chrome, in oil.	.10@15c						
Green, Paris.	good, 12c; best, 25c						
Green, Paris, in oil.	good, 12c; best, 25c						
Iron Paint, bright red.	12@25c						
Iron Paint, brown.	12@15c						
Iron Paint, purple.	12@30c						
Iron Paint, ground in oil, bright red.	12@50c						
Iron Paint, ground in oil, red.	12@50c						
Iron Paint, ground in oil, brown.	12@45c						
Iron Paint, ground in oil, purple.	12@60c						
Linseed Oil, raw.	.50c						
Single Boiled.	.50c						
Double.	.55c						
Mineral Paints.	.9@4c						
Orange Mineral.	.10c						
Red Lead, American.	6@15c						
Red Venetian, (English) dry.	51.50 to 51.75						
Red Venetian, in oil.	ass'd cans, 9c; kegs, 6c						
Red Indian, dry.	.8@12c						
Rose Pink.	10@35c						
Siena, American, raw.	.4c						
Siena, Burnt.	.4c						
Siena, raw.	.8@35c						
Siena, burnt, in oil.	.8@25c						
Umber, burnt.	.4@8c						
Umber, burnt, in oil.	.8@35c						
Umber, raw.	.3@12@7c						
Umber, raw, in oil.	.8@35c						
Vermilion, Chinese.	.9@6c						
Vermilion, English.	6@65c						
Vermilion, American, common.	.15c						
White Lead, American, pure dry.	6@65c						
White Lead, American, pure in oil.	6@65c						
White, Paris, English, prime.	in hrs. 1@2c						
Yellow Ochre, French.	.8@15c						
Yellow Ochre, French, in oil.	ass'd cans, 9c; kegs, 6c						
Yellow Ochre, American.	in bbls. 1@12c						
Yellow Chrome.	.20@18c						
Yellow Chrome, in oil.	9@12@18c						
Zinc White, American, No. 1, dry.	.7@9c						
Zinc White, American, No. 1, in oil.	7@12c						
Zinc White, French (Parish) dry.	10@34c						
Zinc White, French in oil.	10@34c						

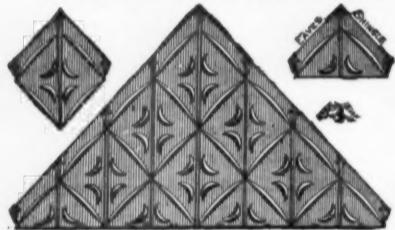
METALS.		TIN PLATES.		BRASS.		WIRE IN COILS.	

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T. C. SNYDER & CO.
MANUFACTURERS OF
IRON ROOFING, SIDING AND CEILING,
(The H. W. Smith Patent is the Best in use.)
PLAIN,
Corrugated,
CRIMPED,
BEADED.
—PATENT CALAMINED IRON IN QUANTITIES—A New Thing.—
Coating is indestructible, will not scale, is soft, solders more strongly and is superior to Galvanized Iron or Tin for all purposes. Protected both in body and surface. Circulars, Price-List and Sample mailed at request.
CANTON, OHIO.

Metallic Shingles FOR ROOFING OR SIDING.



UNSURPASSED BY ANY ROOFING
NOW ON THE MARKET.

Guaranteed Storm-Proof
in Every Climate.

Send for circular and prices of our Celebrated
Dove Tail Tin and Copper Shingles and
Iron-Clad Roofing Plates.

Anglo-American Roofing Co., 22 Cliff St., N. Y.

Works: Scottdale, Pa. Brooklyn, N. Y. Wolverhampton, England.

JNO. G. HETZEL & SON, BALTIMORE AGENTS.

METALLIC SHINGLES. IRON ROOFING AND SIDING

Crimped and Corrugated

W. G. HYNDMAN & Co.
52 & 54 East Second Street,
CINCINNATI, O.

FOR—
DWELLINGS, STORES,
SAW MILLS, BARNS,
FACTORIES, SHEDS,
Etc., Etc., Etc.

Send for Circulars and Prices.
Mention this paper.



ONLY ASPHALT PAINT AND VARNISH WORKS IN THE UNITED STATES.

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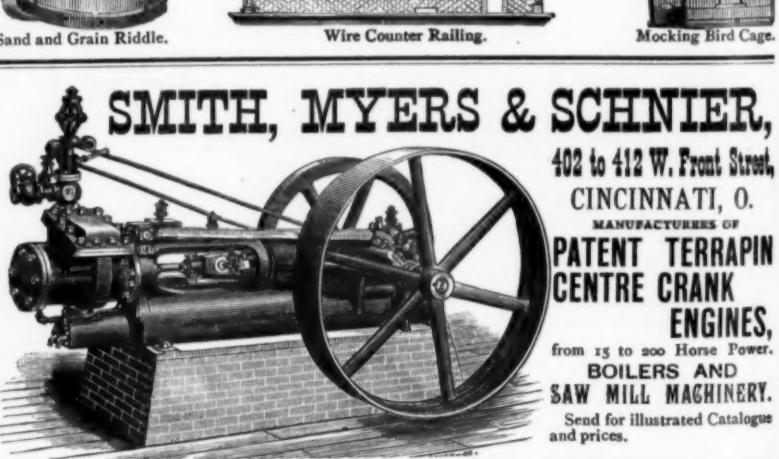
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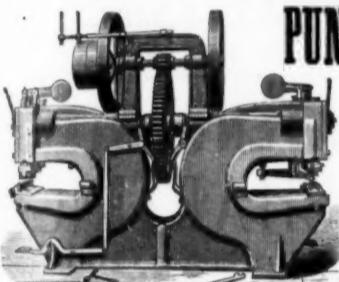
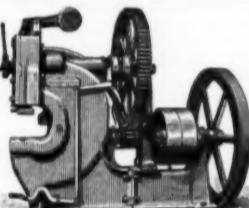
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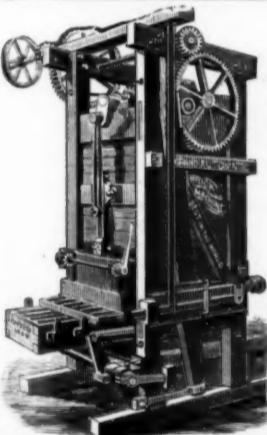
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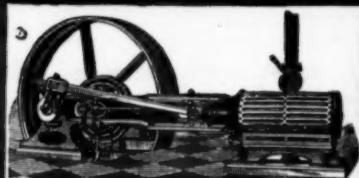
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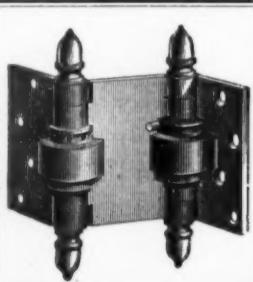
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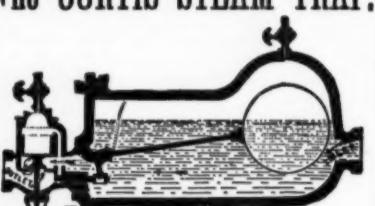
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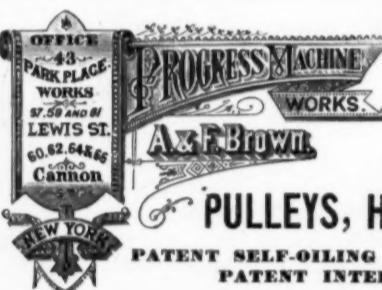


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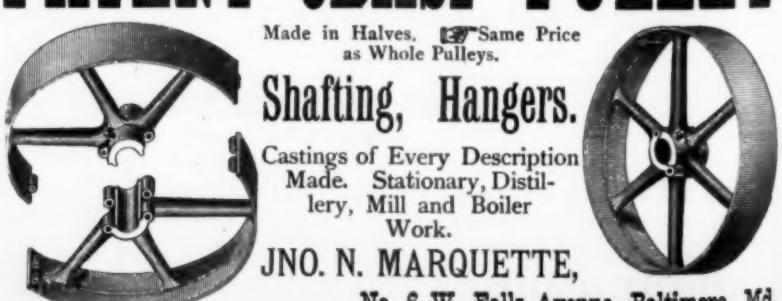
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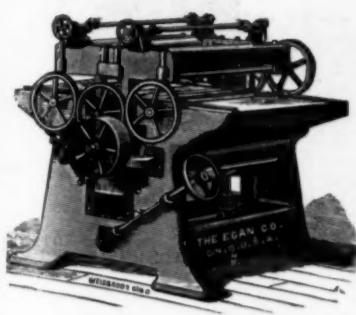


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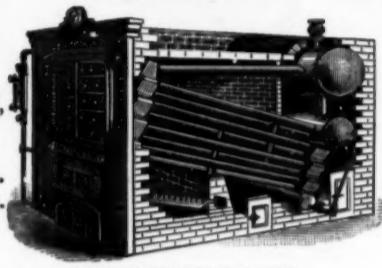
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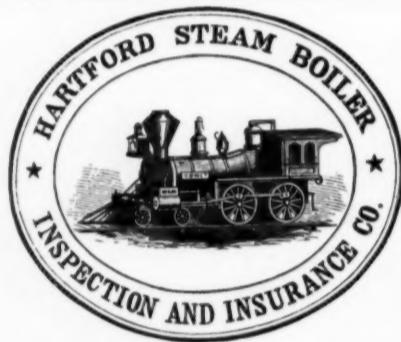
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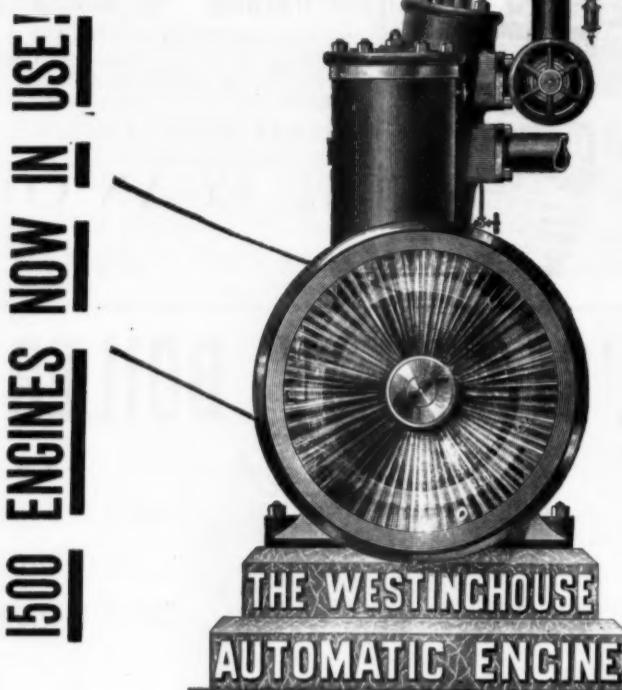
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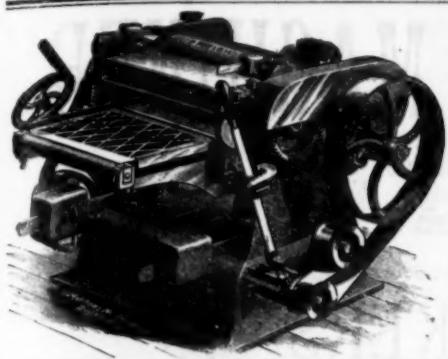
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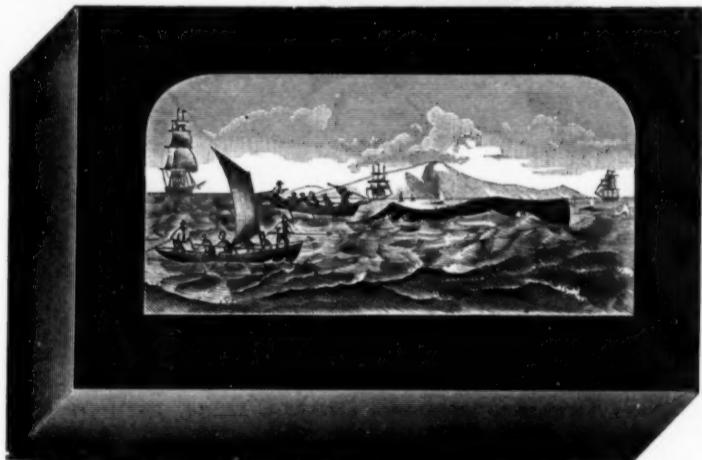
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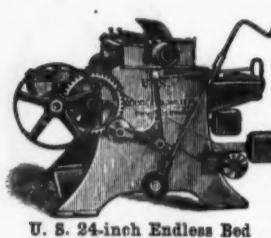
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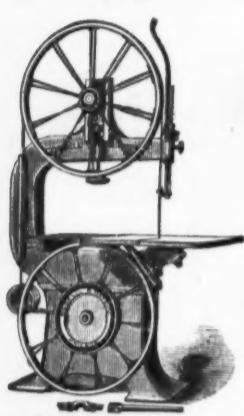


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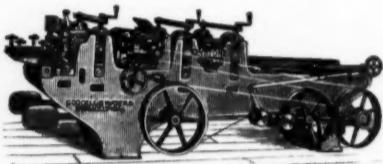
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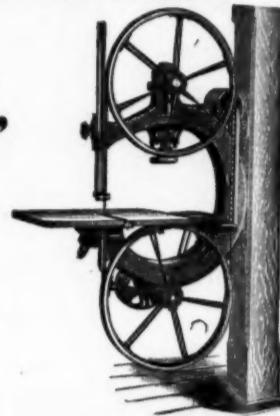
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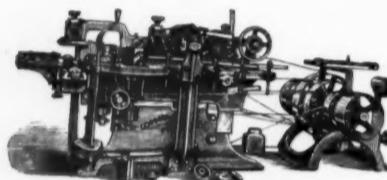


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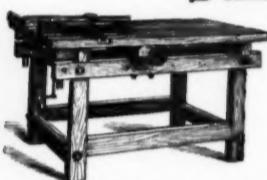
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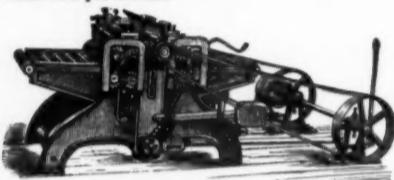
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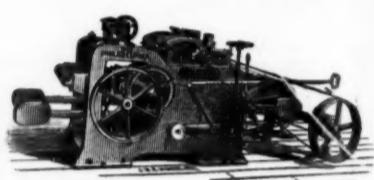
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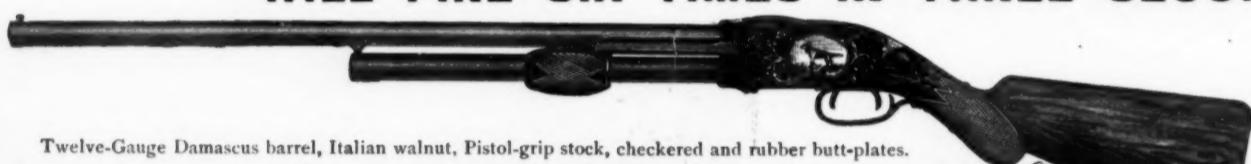
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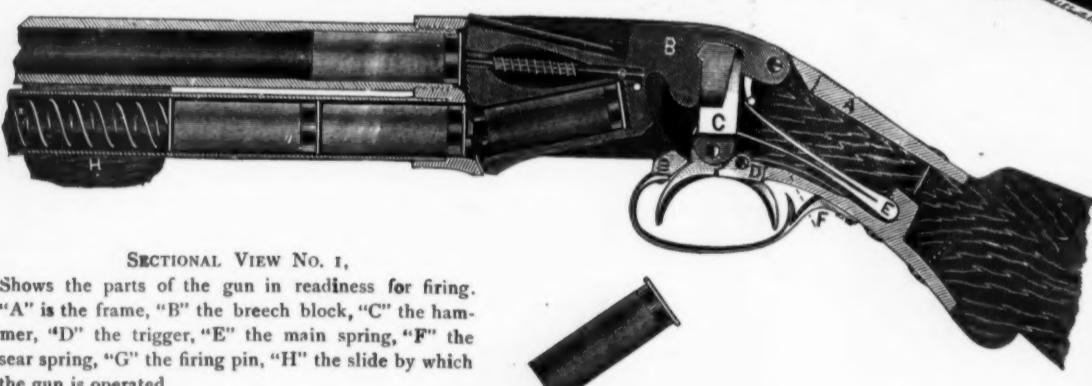
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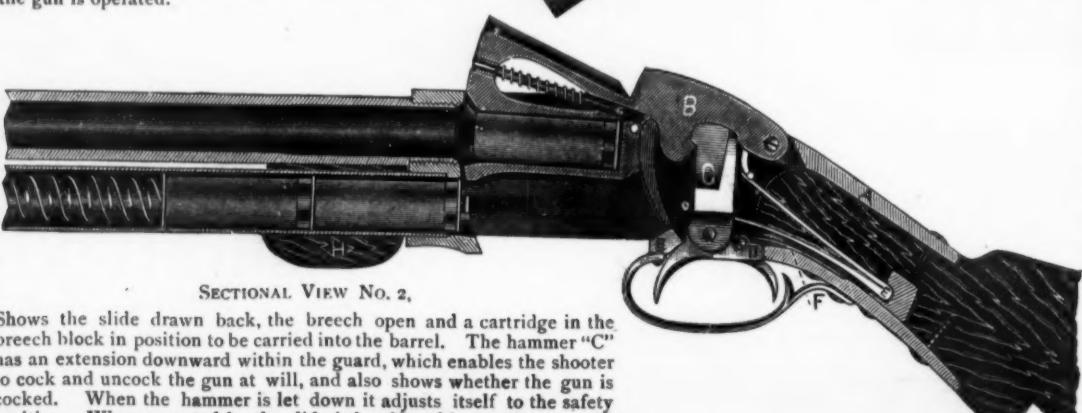


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SECTIONAL VIEW NO. 1.

Shows the parts of the gun in readiness for firing. "A" is the frame, "B" the breech block, "C" the hammer, "D" the trigger, "E" the main spring, "F" the sear spring, "G" the firing pin, "H" the slide by which the gun is operated.



SECTIONAL VIEW NO. 2.

Shows the slide drawn back, the breech open and a cartridge in the barrel. The hammer "C" has an extension downward within the guard, which enables the shooter to cock and uncock the gun at will, and also shows whether the gun is cocked. When the hammer is let down it adjusts itself to the safety position. When operated by the slide it is self-cocking, so that in rapid firing the gun need not be taken from the shoulder.

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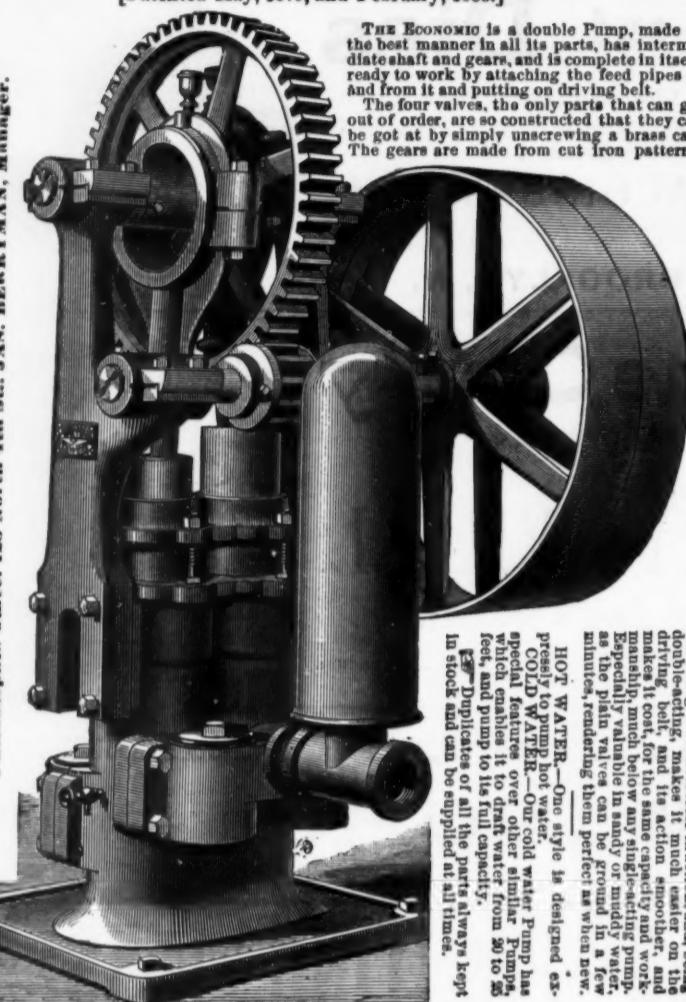
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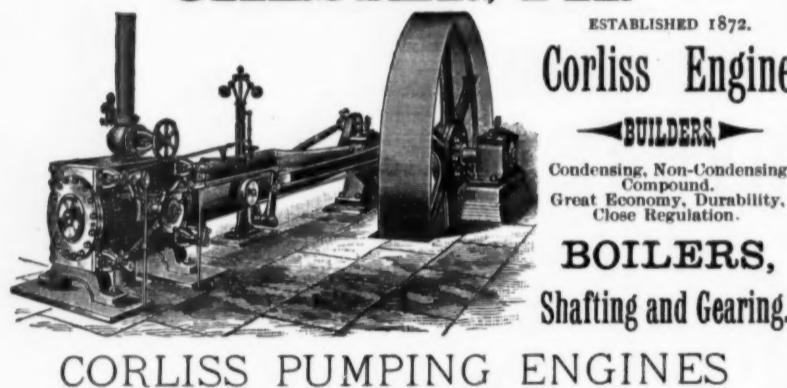
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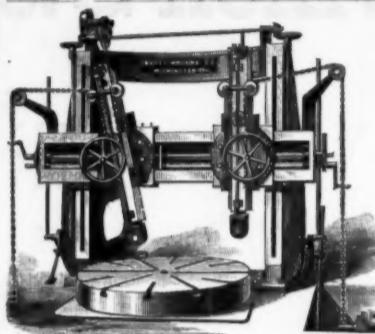
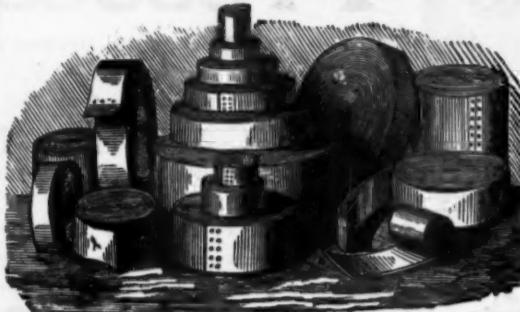
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